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The outsourcing of American manufacturing to the international sector historically utilizes supply chain/logistics analysis (lowest-cost supplier and transportation networks) as the primary method in site selection. This approach stems from Alfred Weber's (1929) location theory, compared to the neoclassical Heckscher-Ohlin theory that focuses on the exploitation of location endowments such as natural resources, capital and labor (Harrington and Warf, 1995). Since established transportation networks are more efficient than in times past, site selection may rely more on the cultural characteristics of the outsourced labor market than on transportation costs.

The objective of this research is to determine whether the Weberian or the Heckscher-Ohlin factor model is relevant in today's outsourcing practices. An empirical case study evaluates why some outsourced production initially placed with contractors proximal to the United States was later transferred to contractor locations a greater distance away - arguably, costing more to the producer and consumer. Data collection takes place through quantitative and qualitative surveys of twenty-five outsourcing professionals. Three cultural characteristics are considered: 1) time sensitivity, 2) on-time delivery, and 3) the establishment of long-term relationships between the foreign contractor and the U.S. manufacturer.

The research will demonstrate that apparel outsourcing site selection is broader than supply chain/logistics/cost analysis and contributes a qualitative perspective to business practices. It responds to previous research that apparel manufacturers have a

preference for contractors at close distance. If cultural considerations influence site selection, then some locations are preferred over others that do not possess similar traits, regardless of distance.

THE OUTSOURCING OF APPAREL AND TEXTILES:

MANUFACTURING SITE SELECTION

by

Edlyn-Kay Leipohaimaukealoha Walsh

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Approved by

_____
Committee Chair

“To my beautiful and extraordinary sister Leigh; a life extinguished too early.”

APPROVAL PAGE

This thesis has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

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Date of Acceptance by Committee

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GLOSSARY

Added Value – The difference between the revenue a firm obtained from a given volume of output and the cost of the input (the materials, components, services) used in producing that output.

Agglomeration – A geographical concentration of people and/or activities.

Agglomeration of Economies - Benefits, savings or (average) cost reductions resulting from the clustering of activities (same as Cluster Economies).

Backward Linkages – Integration of production firms with their supply firms or sources.

Bulk-gaining Items – A raw material that undergoes gain of weight in the process of manufacture.

Bulk-reducing Items – A raw material that undergoes loss of weight in the process of manufacture**.**

Business Process Outsourcing – The transfer of internal business processes (payroll, information technology, and customer service) to an external entity in the form of sub-contracting.

Capacity Contracting - Where the subcontractor tends to absorb the swings in demand allowing the contractor to use its own capacity for the same kind of production with relative stability**.**

Central American Free Trade Agreement – Regional tariff-reduction agreement between Central American countries, nations of the Caribbean Basin and Mexico; also known as CAFTA.

Centrifugal Forces – Promote agglomeration; concentrate production and employment in specific geographical areas that "snowball" and influence "herding" behavior of agglomerated participants; moves production systems toward equilibrium.

Centripetal Forces – Tests equilibriums facilitated by agglomeration; comparative advantage forces discuss further spatial concentration of businesses; predicts conditions that favor deglomeration.

Cluster - *A* geographically proximate group or geographic concentration of "interconnected companies, specialized suppliers and service providers, firms in related industries, and associated institutions (e.g. universities, standards agencies and trade associations) in particular fields that compete but also cooperate; linked by commonalities and complementarities. The geographic scope of a cluster can range from a single city or state to a country or even a group of neighboring countries.

Cluster Economies – - Benefits, savings or (average) cost reductions resulting from the clustering of activities (same as Agglomeration of Economies).

Comparative Advantage – The theory that stresses relative advantage rather than absolute advantage as the true basis for trade. Comparative Advantage is gained when countries focus on exporting goods they can produce at the lowest relative cost.

Competitive Advantage - The theory that stresses absolute as the true basis for trade. Competitive Advantage is gained when competitive producers focus on exporting or producing goods at the lowest cost.

Contractor - Work contracted by a principal to a third-party "contractor", who has to perform according to specifications. A distinction has been made on the basis of different motivations for contracting between "capacity contracting" and "specialty contracting."

Core Competency – Functions or services performed "competently" at the host company.

Core Objectives – Primary business objectives of a company determined by top corporate management.

Core Strategy – Primary strategic plans of a company determined by top corporate management.

Core-Periphery Model – Periphery countries and regions send raw materials to core or industrialized regions at the center of the world economy. From here they are processed and redistributed to all regions of the world. Peripheral regions are dependent on core regions, but not the reverse.

Deglomeration - A geographical concentration of people and/or activities that is no longer competitive or cost-effective resulting in industry or labor vacating the area or region.

Disequilibrium - A theoretical concept used to describe a state of stable imbalance between opposing forces or variables.

Economies of Scale - Reference to the reduction in unit (or average) costs with increasing output levels resulting from both 1) the effects of fixed costs (once a pipe is installed, increased throughput reduces the average costs related to the use of the pipe) and 2) increasing returns to scale (e.g. learning [curve] effects).

Equilibrium - A theoretical concept used to describe a state of stable balance between opposing forces or variables.

Fordism – A mode of capital accumulation based on integrated production and assembly.

Foreign Direct Investment – Investing in companies in a foreign country, with the purpose of managerial and production control.

Foreign Sourcing – An arrangement whereby firms based in advanced industrial countries provide design specifications to producers in underdeveloped countries, purchase the finished products, and then sell them at home or abroad (see Outsourcing).

Forward Linkages - Linkages between a producer or supplier and her customers. As different from backward linkages, forward linkages are output-oriented and, in the matrix-context of input-output analysis, are conventionally traced in rows.

Free Trade Zone – Areas where imported goods can be processed for re-export without paying duties, since the goods will not be used locally.

Head count – Total number of employees in an organization.

Import Tariffs – A schedule of duties placed on products levied on an ad valorum basis (percentage of value) or on a specific basis (amount per unit) imposed by customs for products imported and exported.

Internal Competency – Internal functions or services performed "competently" at the host company.
International Sub-contracting – The arrangement by multinational corporations to use Third World firms to produce entire products, components, or services in order to cover markets in an advanced industrial country.

Isotropic Plain Assumption – The first assumption of Weber's Location Theory; states that manufacturing will occur in one country where the topography, climate, technology and economics is uniform and stable reducing wide ranges of transportation costs.

Just in Time Manufacturing – Quick delivery and response of parts and inventory delivery from component plants to final assembly operations; also known as JIT.

Lean Manufacturing – Manufacturers using just-in-time delivery of supplies to keep production costs low.

Material Index - Ratio between the sum of the weights of the localized materials and the weight of the final product. A material index which is larger than one signifies a "material orientation" of the location of production; see also "weight-loss ratio".

Multinational Corporation – Companies based on some country that do business in one or more other countries (MNC).

North American Free Trade Agreement – Agreement between Canada, the United States, and Mexico passed by the U.S. Congress and signed by President Clinton in 1993 (NAFTA).

One Finished Product-Single Market Assumption – The second assumption of Weber's Location Theory; states that only one product is manufactured for one specific market.

Outsourcing – Subcontracting and the shifting of work to other locations and firms outside the principal corporation.

Product Diversification – A company produces an increasing number of new, modified, or unrelated products each with elements of horizontal or vertical integration.

Raw Materials-Fixed Location Assumption - The third assumption of Weber's Location Theory; states that since natural resources are unevenly distributed across the physical landscape, the manufacturer is charged to go where the resource is available and accessible; raw material is not available everywhere.

Return on Investment – The ratio of return (or profit) from the original investment (ROI).

Secondary Economic Activity – The processing of materials to render them more directly useful to people; manufacturing and assembling of raw materials (related to Second Sector of the Economy).

Site Location – Assessment of the physical attributes of an absolute location.

Site Selection – Process of selecting an absolute location based on its physical attributes.

Skilled Labor – A factor of production that includes human physical exertion with marketable abilities (usually education and training) in the creation of a good or service.

Snowball-Herd Effect - The "herding" behavior of agglomerated participants promoted by agglomeration that "snowballs" production and employment concentrations (see Centripetal Forces).

Space of Production - Relatively small parts of geographical space occupied by a person or small segment of society to produce or manufacture a good or service; signifies certain relationships or ties between people and this specific space.

Specialty Contracting - *W*here the subcontractor performs a specialized function not performed by the contractor.

Sub-contractor - Work contracted by a principal to a third-party "subcontractor", who has to perform according to specifications.

The Labor-Fixed Geography Assumption - The fourth assumption of Weber's Location Theory; states that depending on the type of industry, labor may be fixed to a specific location; unskilled labor can be found any where in limitless quantities but this demographic is quite mobile.

Trade Costs - The costs (tariffs, import quotas, export subsidies) associated the importation or exportation of goods.

Transportation Cost-Weight and Distance Assumption - The fifth assumption of Weber's Location Theory; states that transportation costs are a direct function of the weight and distance.

Unskilled Labor - A factor of production that includes human physical exertion with low marketable abilities (little or no education and training) in the creation of a good or service.

Value Added – The difference between the revenue a firm obtained from a given volume of output and the cost of the input (the materials, components, services) used in producing that output (same as Added Value).

Vertical Integration - Corporate mergers involving firms which are involved in forwardly or backwardly related production stages, i.e. they buy each other's inputs or outputs. A merger accomplishing an internalization of such linkages increases control of input or output markets and thereby over prices and other market facets.

Wage Differentials – Difference in wages between and among groups on the basis of occupation, type of labor, region, race or gender.

Weberian Location Theory – A minimization theory accounting for transportation costs, location of raw materials, and a fixed location of labor.

Weight-Gaining Item – A raw material that undergoes gain of weight in the process of manufacture (same as Bulk-Gaining Item).

Weight-Reducing Item – A raw material that undergoes loss of weight in the process of manufacture (same as Bulk-Reducing Item).

CHAPTER I

INTRODUCTION

When a company outsources (transfers) an internal process (like manufacturing) to an external entity (such as a contractor), many companies utilize supply chain/logistics quantification methodologies to identify the lowest-cost providers and the lowest-cost transportation options. This generally means that the outsourced location must first, possess the human resource with the specific skills to manufacture the product and secondly, that its proximity to the raw materials or point of distribution provides an advantage or benefit in that particular location for the host company. However, some U.S. based companies choose outsourced locations that are not proximal, and therefore, not lowest-cost, which challenges whether supply chain methodologies can accurately identify the lowest-cost locations in the outsourcing of manufacturing processes.

The purpose of this research is to conduct one of the first quantitative and qualitative studies of the impact of 1) transportation cost and 2) place-based cultural characteristics on the location decision on the performance of specific functions in the production chain operations of the textile company, Sara Lee Branded Apparel/Hanes Brands in Latin America from 1995 to 2000, which constitutes the case study of this analysis. This analysis utilizes the Weber location theory (that product weight and transportation distance determine lowest cost) and the Heckscher-Ohlin theory (that the

lowest cost raw material in manufacturing would yield the best comparative advantage) as points of reference in discussing site selection decision-making of outsourced product. The case study company employed supply chain/logistics methods to identify the lowest cost locations to assume domestic manufacturing primarily in lower cost locations in the United States and to proximal locations in Mexico, Central America and the Caribbean. However, during this 5-year period, some business units began product placement in distant locations in the Middle East, the Near East, and the Far East. This research surveys former and existing employees of Sara Lee Branded Apparel/Hanes Brands to assess why product placement in more distant locations were more cost-effective than in proximal locations by discussing cultural characteristics of distant labor (the Middle East, Near East and the Far East) versus those of proximal labor (Mexico, Central America and the Caribbean).

The outsourcing of American manufacturing to the international sector historically utilized supply chain and logistics considerations (lowest-cost supplier and transportation networks) as the primary method in site selection, stemming from Alfred Weber's location theory (Weber, 1929). Since established transportation networks (maritime and land) are more efficient and less costly due to the emergence of "super carriers" that are larger (accommodating greater volumes) and faster (speeds that reduce transit times) than standard container carriers, site selection locations may be determined by the presence of natural resources (raw materials) proximate to the production site and the cultural characteristics of the labor market than on transportation costs as assumed in the Heckscher-Ohlin theory (Harrington and Warf, 1995).

The location of industrial production chain elements affects the profitability for the producer-employer, such as the price to the customer, employee wages and the potential wealth invested in the community. These "spaces of production" cannot occur everywhere but must occur somewhere. Alfred Weber introduced the "Theory of the Location of Industries" in 1909 that proposed spatial analyses for optimal location with minimal costs to the manufacturer. This aspect focused on transportation costs based on weight and distance and on the accessibility to natural and human resources. This, in turn, promotes the agglomeration or clustering of economies (external economies that involve one industry or a group involved in related activities of the same industry) (Smith, 1982) that resulted when other manufacturers replicated similar profit-maximizing production processes and labor market utilization in the same industrial locations (Hudson, 2005).

Since every location is unique and natural resources are unevenly distributed across the physical landscape along with distinct human endowments, manufacturers search for the lowest costs for resources (such as water and electricity) while maintaining standards of quality. They also implement strategies to reduce human resources costs such as headcount, wages and benefits. This vigilant search for comparisons pits one location against another to gain the attention of industry, indicating that corporations can function as "agents of change" in a location. The dimensions of choices by corporate strategists are long-term, adopting courses of action, and allocating resources to meet the firm's goals. Almost all firms focus on expansion of volume, geographical dispersion, vertical integration, and product diversification (expansion and development of newer products). In doing so, it has become necessary for firms to secure competitive costs for

resources and competitively skilled labor outside of their current manufacturing locations, a practice otherwise known as outsourcing. The future of these domestic and outsourced locations is subject to geographic, social, and economic consequences (Malecki, 1986).

Outsourcing is defined as "the strategic use of outside resources to perform activities traditionally handled by internal staff and resources" (Handfield, 2006). In a broader sense, sourcing is the production or manufacture of a product or service that is transferred from one entity in one location to another lower-cost entity in a less-costly location. Thus, lower costs justify companies sourcing from one area to another area, from one region to another region, and from one nation to another nation. As a result of sourcing, lower-cost locations benefit from increased jobs, U.S. investment, and produce cluster economies. The vacated areas suffer job losses and potential wage reductions to compete with foreign production (Glass and Saggi, 2001).

The outsourcing of American manufacturing to the international sector steadily increased since the 1990s in order to decrease domestic production and labor costs while improving profit margins and reinvestment of new products. Despite the greater geographical distances between the headquarters and the manufacturing locations, the increased transportation and logistical costs along with increased transit times, companies continue to favor international manufacturing over domestic production (Kleinert, 2003). As this strategy became a common business practice, most elements within a manufacturing company were analyzed for suitability and impact. Some aggressive and leading manufacturers outsourced vital key services and core departments in an effort to convert fixed overhead to variable costs. The just-in-time inventory (JIT), supply chain

compression and sub-contracting of key processes produced some sourcing success stories. In an attempt to compete globally, manufacturers of goods successfully "off-shored" the complete manufacturing process to lower-wage countries. Apparel, textiles, durable goods and sub-components are popular examples [of outsourced goods] (Handfield, 2006).

Today's competitive business environment pushes every company to reduce production costs. Yet, there is a limit to the savings that can be reached through reduced inventory and lean manufacturing (the lowest head count for the maximum production output and the most efficient processes to increase production output). Since reducing head count, many companies are now using "sourcing" as their weapon of choice to cost-cut manufacturing. However, outsourcing encompasses more than shrunken budgets and reduced head count. It can deliver a broad range of advantages utilized by progressive companies to benefit from best practices, focus on core competencies, offer flexibility to adapt to changing market conditions and demand, and rethink the business that could result in a company transformation (Handfield, 2006).

The justification for outsourcing internationally includes enabling lower infrastructure costs such as costs for water and electricity. Other advantages include fewer labor and environmental regulations, creating a business-friendly market that welcomes foreign direct investment in return for cheap labor, quality product, and timely delivery (O'Rourke, 2003). The partnership that arises from the outsourcing relationship allows for strategic advantages to both parties and brings about enhanced results: improved profits. Consequently, companies are likely to select outsourcing on the basis

of who can deliver more effective results within the return on investment (ROI) cost structure. If successful, the short-term relationship becomes long-term.

American manufacturing's long economic relationship with Latin America is enhanced by that region's geographic proximity to the U.S. and established multi-modal transportation network chains. However, by the mid-1990s, outsourcing from the U.S. to Mexico and Central America began to shift toward Asia. This occurred despite the enactment of the North American Free Trade Agreement (NAFTA), which was the most significant regional trade policy to date. The transference from proximal locations to more distant countries challenged the "supply chain-lowest cost-closest geographic location" model. As retailers demanded more complex apparel construction and a shortened production timeframe, U.S. manufacturers began including cultural characteristics of the site selection location such as 1) time sensitivity, 2) on-time delivery, and 3) the creation of a long-term apparel contract relationship with the U.S. manufacturer.

1.1 Thesis Statement

The Weberian Location Theory (that transportation costs determine the manufacturing location) is less relevant in site selection than the Heckscher-Ohlin Theory (which focuses on location endowments (such as resource availability and labor characteristics) for the outsourcing of apparel and textile products such as Sara Lee Branded Apparel (Hanes Brands) from 1995-2000.

1.2 Research Outline

This research paper presents the introduction, the literature review, the research design/methodology, the research case study, the findings and conclusion. The literature review is comprised of four sub-topics: the purpose and structure of outsourcing followed by the location theory, site selection and site selection criteria which explain the differences between the Weber location theory and the Heckscher-Ohlin location. A discussion of agglomeration is followed by an overview of the textile and apparel industry and the section ends with three research questions pertinent to this thesis.

The research methodology is applied in the Sara Lee Branded Apparel/Hanes Brands case study within the framework of the research hypothesis. The data sources are the pre-selected outsourcing professionals that include a description of the study participants, the study surveys and the quantitative and qualitative data collected. The findings are displayed in a matrix format and cartographically in ArcView 9.1. These research findings contribute to the research conclusion that is supported by corresponding tables and figures.

CHAPTER II

REVIEW OF THE LITERATURE

This literature review discusses the scholarly research conducted by geographers, economists, public administrators, supply chain/operations professionals and others on the subject of site location in the outsourcing of internal processes. Most of the extensive research already conducted on outsourcing reveals the contributing factors in the selection of the manufacturing location, the type of task within the production chain at that site, labor characteristics, any advantages or disadvantages from the clustering of other industries in the vicinity, and the unique needs of specific industries like the apparel and textile industry. The literature reveals why outsourcing is a mainstay in the manufacturing process and that apart from supply chain methods, site selection is impacted by non-quantitative attributes of the outsourcing location. This research will contribute a full scope of transferring aspects of the production chain process, which will include sub-topics on the specifics of outsourcing, location theory, site selection, and agglomeration on the apparel and textile industrial sector. By surveying outsourcing professionals in the apparel and textile industry, this research will identify the criteria used in site selection and whether some geographic locations (countries or regions) are preferred compared to other locations. Hence, locations can utilize this data to gain a competitive edge against competing locations in the race to attract and retain industry.

Section 1 draws attention to the basic research problem of the thesis which is whether some outsourced locations are preferred by outsourcing professionals by first discussing the location methodologies of site selection through the examination of outsourcing's purpose and structure in manufacturing. Section 2 illuminates the various outsourcing practices across several industries and how outsourcing practices have become core strategies in the majority of corporations. Section 3 provides insight into location theory and the site selection process by discussing the characteristics that render a location attractive to the host company. Some industries (like automotive manufacturing) have shifted their processes entirely from one geographic location to another. Section 4 examines how successful outsourcing creates a cluster effect or agglomeration of similar outsourcing practices by other host companies. This identifies the geographic, human resource, natural resource, economic and political characteristics that allow for successful outsourcing outcomes. Section 5 discusses the textile and apparel industry's outsourcing practices from developed countries to less-developed countries due to the accessibility, availability, and low-cost of natural resources (such as water and electricity) and human resources (inexpensive labor).

Despite surging corporate profits, American communities have been devastated by the outsourcing of manufacturing jobs to foreign labor. Now, popular foreign entities (like Mexico, Central America and the Caribbean) are facing competition from entities in the Middle East, Near East and Far East as the push for greater corporate profit margins drive outsourcing processes farther away from the geographic core (first world countries) to the periphery (less-developed/developing countries).

There is substantial literature on outsourcing and site selection. However, there is no literature on outsourcing pertaining to the site selection criteria of the apparel and textile industry (especially qualitative).

2.1 The Origins of Outsourcing

Global outsourcing began with the Industrial Revolution in the late 1700s first in Europe and the United Kingdom then in the United States, as manufacturers pursued opportunities to exploit their competitive advantage and to increase their markets and profits. The most common model of the 20th century was to organize a company that would "own, manage, and directly control" its assets (Handfield, 2006). By 1950-1960, the evolution toward a diversified corporate base led companies to take advantage of economies of scale. This resulted in profit protection despite requiring multiple layers of management. By 1970-1980, companies found that this organization handicapped their ability to react more readily to market demand. In order to become more flexible and creative, large companies focused on core business objectives that led to the identification of critical processes related to core objectives and to the processes that could be outsourced. Outsourcing was not recognized as a fundamental business strategy until 1989 mostly because most organizations were not fully self-sufficient. If a company did not possess internal competency (which means that the company could not perform this task internally) then that competency or process was outsourced. This in turn effected cost savings, improved finances and created strategic partnerships directly related to the bottom line (Mullin, 1996).

Functions that are not core to an enterprise's business or related to its strategic direction are appropriate for outsourcing. In general, functions that affect revenue generation, such as product development and direct customer contact, are considered core. In the past, outsourcing targeted clearly definable areas such as Information Technology services such as the help desk, security, and data backup storage. Forward-thinking companies outsourced entire functions called Business Process Outsourcing (BPO) that usually include financial accounting, payroll and benefits management, and customer care/service. Hence, outsourcing can take several shapes and forms even within the same industry depending on the host company's needs.

Hiring contractors for a particular function or timeframe is a precursor to sourcing. The difference between simply supplementing resources by "subcontracting" and actual outsourcing is that outsourcing involves substantial restructuring of particular business activities. This often includes the transfer of staff from a host company to a specialist, usually smaller, company with the required core competencies. At times there are shared responsibilities and processes between the host company and the contractor/sourced company for specific functions while other processes are clearly delineated and distinct. In outsourcing's infancy, cost or head count reduction was the most common reason to outsource. Today the driver for outsourcing is more strategic, focused on adding value to core objectives and in-house activities: reduced operating costs, improved host company focus, accessibility to world-class capabilities, free internal resources for other purposes and shared risks with the partner company. Reinvestment, development and innovation targets are explored and expanded due to resource generation from outsourcing

(Handfield, 2006). However, the outsourcing of secondary economic activities such as manufacturing is more prevalent than previously thought in advanced or developed industrial economies and occupies a new significance in the world economy as this outsourcing can restructure certain sectors. One major characteristic is in the utilization of marginalized labor (both foreign and domestic) which provides a significantly lower wage and no benefits.

The nature of outsourced contract agreements is complex and encapsulated in the fine print. There are two types of basic contracting, *commercial* and *industria*l. Commercial contracting is when the manufacturer has its own facilities or contractor facilities produce that label according to the in-house design, color ways, specification and packaging. These products are retailed through multiple in-house channels (the brand's own retail store, discount store, outlet store, e-commerce, or catalog) and with client retailers like Wal-Mart, Target or Kmart. Industrial contracting is a when a product in manufactured according to "technical character." In other words, the typology of the design and construction is critical. For example, the contract centers on the garment concept but the design and exact construction specifications may be left entirely up to the contractor. In other scenarios, some aspects of production are inflexible while other aspects are flexible. The contract relationship identifies if the supplier is independent or if the supplier is subject to a vertically integrated production where the host company performs some of the manufacturing functions and then hands off the rest of the production to the contractor (Holmes, 1986).

Other forms of contracting are specialized as found in Exclusive Contractor Production and Competency Parent Firm Production. The Exclusive Contractor Production agreements are short-term, season, customer-specific lines that are usually low volumes and high cost. This might be an exclusive holiday robe in a particular color just for that season. The Competency Parent Firm Production creates not-so-critical production to enable a factory to reach or exceed capacity (production volumes), or "outside" work that is specialized for those select units like embroidery or embellishment. These contracts are for the independent contractor where the host company requests extra capacity to help out the contractor or where the contractor agrees to do additional specialty work for the host company (Holmes, 1986). Both of these situations strengthen the contractor relationship and assure both parties that the decision to partner together was right.

There are risks and rewards to outsourcing. Economic drivers and motivators to contract third parties reduce costs to the company. Foreign countries are the target source due to reduced environmental and labor standards that make manufacturing set-ups easy. Short-term relationships can develop into long-term relationships if the host company and the contractor find the arrangement satisfactory and profitable (Rost, 2006). Once the decision to outsource is made, the most important factor is in site (or contractor) selection. Although production can occur any where, it does not occur every where. Selection often determines success or failure of the host company's venture even as the host company usually considers all outsourcing arrangements as successful to considerable savings to the company.

2.2 The Purpose and Structure of Outsourcing

Outsourcing is the replacement of "in-house/in-company" functions by non-company personnel both long-term and short term. The purpose of outsourcing is to reduce costs to the manufacturer by allowing a third party to assume the day to day functions of production while permitting the company a focus on business strategies and initiatives. This contract specialization reduces direct communications and long-term relationships with the parent company (Gereffi, 2001).

There is no perfect site, and even if there were, there would be no way to know it (Stafford, 1980). Even so, outsourcing became synonymous with the loss of domestic jobs. A ruined economy of once-thriving manufacturing cities is thus related to the economics of supply chain/logistics processes and labor practices. A major purpose of outsourcing is to release capital to be used elsewhere within the company while keeping in-house strategic options open by combining both the capital allocations and purchasing function (Tales and Drury 2001). Accounts related to apparel outsourcing focus on "sweatshops" and deplorable working conditions in both developing and industrialized countries that shine a spotlight on government labor practices and policies examining both treatment of labor and wage structures. This confirms that host companies exploit and benefit from contractor partnerships which perpetuate weak regulations and enforcement of labor standards.

Along this same theme of international outsourcing effects, Glass and Saggi (2001) found that outsourcing lowered the marginal cost of production and increased profits, which can lead to greater incentives for product innovation. The effects of outsourcing

are not purely American. In one study, some German manufacturers increased the amounts of purchased services, imported materials, obtained skilled labor and capital for outsourced production. Firms began replacing unskilled workers (cleaners, telemarketers, truck drivers previously employed in manufacturing) with other inputs due to increased costs for intermediate materials (Falk and Koebel, 2002).

The configuration of Fordist manufacturing held the greatest impact on outsourcing. Industries that outsource engage in "peripheral Fordism" which is traditional Fordism coupled with intensive accumulation and the growth of markets. Fordism refers to the implicit agreement among business, workers, and government to support the development of mass markets to consume the rapidly increasing output of large, efficient plants and organizations. Instruments of this agreement include wage settlements, tax policies, mass production technology, and a public infrastructure to support growth, credit availability for investment and consumption, and social security. These large corporations supported a vertically integrated organization where the company created products from the raw material stage such as cotton or minerals through processing and production culminating in a finished product for the consumer market. As new technologies such as computer software development increases, the corporation begins intensive accumulation of goods through high productivity resulting in improved processes and opportunities for new products and new market growth (Harrington and Warf, 1995). It is "peripheral" because the global circuits of productive sectors and qualified employment positions (above all in engineering) remain largely external to the outsourced countries and transitioned these vertical processes through "deverticalization",

and ultimately, horizontal processes characteristic of outsourcing. Deverticalization is illustrated when the manufacturing company monitors off-shore production very closely with contractor factory management reporting directly to the host organization. Target locations are in newly industrialized areas (domestic) and newly industrialized countries (international) where hourly wages are considerably lower and the working class less organized. This enabled strong rates of exploitation in wages, the duration and intensity of labor to produce goods re-exported to the core (the United States, the United Kingdom, etc.). The emergence of free trade zones (FTZs) in the 1960s best illustrated this strategy known as export-oriented production but could also be a strategy of export-substitution commonly found today (Lipietz, 1986). Thus, outsourcing often follows a sequence of development and defines what good is produced and where: a global pattern of production.

This global pattern of production merges into a post-Fordist system or regime that uses new technologies to supplant large, centrally-controlled corporations. In the 1970s, a surge of entrepreneurship in many countries offered more flexible employment relations like subcontracting, part-time work, and unofficial employment in every industry. Hence, entry into global industrialization enabled greater opportunities to outsource manufacturing (Harrington and Warf, 1995).

2.3 Location Theory

The study of the location of production (otherwise known as spatial economics) has a long history and despite great interest, there is no consensus in the literature about

the factors that influence the location of new businesses (Jovanovic, 2006). However, corporations that engage in outsourcing do utilize some methods in selecting a location—generally, supply chain/logistics driven by lowest manufacturing and labor costs. Still, locations must possess a culmination of specific economic, political, labor, social, and resource characteristics to be considered in site selection.

2.3.1 Weber Location Theory

In 1909, Alfred Weber proposed economic modeling to industrial location and formulated a "least cost theory" that explained and predicted location patterns of industry. He stated that the point for locating industry minimizes transportation and labor costs based on the three factors of Material Index, Labor, and Globalization. Weber predicted that if any of these three factors proved successful then an agglomeration (or cluster) economy could be expected and stated that manufacturers should locate closest to the raw materials or to the consumer market. Since transportation costs are based on *distance* and *weight* of the shipped product, the material index which is the ratio of weight to intermediate products or raw materials to the finished product will determine the production location based on bulk-reducing or bulk-gaining materials.

In the "bulk reducing" situation, the raw material weighs more after excavation than after material utilization. Hence, manufacturing should occur closest to the raw material since transporting the materials to the market for processing would be costly. In the "bulk gaining" situation, the end product weighs more after processing dictating that

the manufacturer should locate closest to the market for processing to transport the finished product the shortest distance and yield a lower transportation cost.

This location theory identified two major types of labor needed for manufacturing: skilled and unskilled. Industries with low skill requirements (such as apparel and textile manufacturing) are able to secure labor any where. The major characteristics associated with unskilled labor are low wages, little unionization, and a younger labor demographic. Meanwhile, skilled labor presented unique challenges since this demographic is typically educated, highly skilled, specialized, and difficult to obtain. In this situation, employers are reliant on the employee. With unskilled labor, the employee has little leverage or security with the employer.

Weber predicted that if manufacturers adhered to his location theory through proper application of the material index and appropriate management of labor, then an agglomeration economy could be expected at these spaces of production. He explained that other similar manufacturers would locate proximally to take advantage of the internal and external economies that developed from industry. If the "draw" was unskilled labor, then manufacturers could have access to a large labor pool and work together to maintain wages, giving the advantage to the manufacturer by allowing competition among employees. In reverse situation, skilled labor would allow competition among employers for their skill and gain the compensatory advantage. Conversely, if the created agglomeration yields an "excessive" concentration of firms or labor, then deglomeration can be expected. Once productivity reaches an optimal level, facilities become overtaxed and previous advantages gleaned from agglomeration are now reduced. Hence,

manufacturers begin the search for another profit-producing competitive location vacating the agglomeration that brings about deglomeration.

Weber's Location Theory also considers assumptions associated with Globalization (that for the purpose of this paper we will refer to as Outsourcing) of industry. Industrial activity is a secondary economic activity categorized as processing, creation of intermediate parts, and final assembly. Weber proposed five assumptions of industrial activity: 1) Isotropic Plain Assumption, 2) One Finished Product-Single Market Assumption, 3) Raw Materials-Fixed Location Assumption, 4) Labor-Fixed Geography Assumption, and 5) Transportation Cost-Weight and Distance Assumption. The Isotropic Plain Assumption states that manufacturing will occur in one country where the topography, climate, technology and economics is uniform and stable reducing wide ranges of transportation costs. The One Finished Product-Single Market Assumption states that only one product is manufactured for one specific market. The Raw Materials-Fixed Location Assumption states that since natural resources are unevenly distributed across the physical landscape, the manufacturer is charged to go where the resource is available and accessible. The raw material is not available everywhere. The Labor-Fixed Geography Assumption states that depending on the type of industry, labor may be fixed to a specific location. Weber stated that unskilled labor can be found any where in limitless quantities but this demographic is quite mobile. The Transportation Cost-Weight and Distance Assumption stated that transportation costs are a direct function of the weight and distance (Weber, 1929). However, Weber did not consider the topographical and geographical diversity affecting transportation and

location costs nor the onset of technology that has revolutionized globalization in manufacturing and transportation.

2.3.2 Heckscher-Ohlin Theory

The Heckscher-Ohlin (HO) model, which is a general equilibrium mathematical model of international trade, emphasizes the nature of demand, the marginal costs and benefits of production within the framework of comparative advantage. Basically, HO states that a country should utilize its most abundant and least expensive resource. For example, if capital is abundant, then capital should be exported (such as Foreign Direct Investment) and if labor is abundant, then labor should be exported (via finished goods as a result of production labor). HO theory includes factors of production such as labor, land, and capital that determines a country's comparative advantage by explaining that the determinant of product pricing is related to the price of production inputs. By measuring production possibilities (the maximum amount of goods that can be produced using different combinations of labor and capital) and diminishing returns (production systems with fixed and variable inputs beyond a certain point will yield fewer outputs). The point of tangency between these two measurements indicates the optimal tradeoff (Harrington and Warf, 1995). Still, when neither labor, resources nor transportation costs remain competitive, corporations are forced to consider outsourcing to remain profitable.

2.4 Site Selection and Site Selection Criteria

The criteria of site location or site selection is contingent on whether the

manufacturer should produce closest to its market and distribution or closest to manufacturing components (such as raw or natural materials). Once "market" or "resource" is decided, the evaluation of potential contractor and site location begins. The host company 1) conducts a general area search, 2) evaluates the local community, 3) inspects the potential facility, 4) reviews governmental policies like favorable tax rates and appropriate zoning for industrial activity, and 5) if cultural obstacles exist to locating their business to that community (Hack, 1999).

Different types of production determine location based on the available labor market. For example, if the product requires low skills, low education and low training in manufacturing high volume like apparel sewing/assembly and textile manufacturing, then finding a suitable location is not difficult. The argument is that unskilled labor is abundant everywhere and this provides management with leverage to "hire and fire" employees that are slow to achieve production proficiency. On the other hand, if the product requires great flexibility under the "just-in-time-lean manufacturing" setting, the employee must possess high skill resulting in fewer location possibilities reinforcing that regardless of skill level, U.S. companies are looking for non-adversarial, compliant, and company-oriented labor (Hudson, 2005).

However, general location characteristics can reduce the complexity of selection. Some studies show that high diversity and specialization are found in large cities. As locations and communities grow, labor is attracted to the city and vacates more rural areas for urbanized opportunities. Although all places are subject to economic cycles and industrial shifts, the high diversity (despite specializations) provide resiliency to weather

downturns. Hence, site selection proximal to large diverse cities offer various levels of skilled and unskilled labor for the manufacturer (Duranton and Puga, 2002).

According to a previous case study of twenty Ohio firms with newly established manufacturing plants, a similar criterion was used for international sourcing and for domestic outsourcing. These companies were surveyed on fourteen points of location factors: 1) cooperation between the town's leading citizens and government with the manufacturer headquartered in the U.S., 2) low labor rates or wages, 3) adequate transport facilities, 4) sufficient infrastructure such as power, water, sewage and road access), 5) market accessibility, 6) supplies accessibility, 7) executive convenience for upper management including freedom from disruptive influences, 8) communication ease between the factory and the home office, 9) local amenities in the outsourced location namely, shopping, housing, and schools, 10) induced amenities (approval by local government agencies to create special facilities to attract new manufacturing, 11) low taxes, 12) dispersion tendencies or better described as dominance in a location reducing agglomeration, 13) labor availability, and 14) labor productivity. These location factors are common and fall squarely into the supply chain/logistic analysis. The first and most critical factor is the availability of labor (skilled, semi-skilled, and unskilled) and labor productivity ("getting what is paid for"). There is little else required of the labor market. Characteristics of time sensitivity, timely deliverables, or high quality production are secondary in what is required of labor. If the outsourced labor fails to delivery high quality production on time, then the labor productivity factor is negated and costly to the manufacturer (Stafford, 1980).

The list of location factors for international outsourcing included the same domestic location factors with additional considerations for 1) market growth (especially true in service industries but not so much for manufacturing due to Free Trade Zone policies), 2) non-tariff barriers (NTBs) which eventually render high-use countries of the NTBs as less-preferable to locate facilities, 3) preferable exchange rates that reduce incidence of currency depreciation, 4) availability of highly-skilled human resources and availability of advanced technology, 5) cost advantages of proximity to customer markets, 6) and participation in regional economic trading groups like NAFTA, the European Community (EC), and the Association of South-East Asian Nations (ASEAN). The selection of one country in each affiliation generally opens up markets and supplier network sources throughout the entire trading group, offering multiple possibilities of potential contractors (Schniederjans, 1999).

A recent study by Duke University sociologist Gary Gereffi contributes the notion that regional economic trading groups like NAFTA are advantageous and preferred by U.S. manufacturers. After analyzing the sourcing patterns in the global supply chain, it was found that even though patterns are shifting, there is an increased emphasis on imports from Mexico and the Caribbean Basin rather than in Asia. Using Sara Lee Branded Apparel as one of the case studies and collecting outsourcing data with overlapping timeframes for this research, Gereffi supported his conclusions based on total dollars earned from production in Mexico and the Caribbean Basin compared to Asia. His illustrated graphic places Mexico and China neck-to-neck in import totals to the United States, however. Additionally, Gereffi fails to distinguish the type of product

complexity in each location. For example, since Sara Lee Branded Apparel mass produces basic underwear items in large quantities such as 1.5 million dozens (18 million under shirts), and based on Dicken's Global Shift series, it is reasonable to expect basic production in a Latin American country, not in a location producing more sophisticated and technologically advanced goods. Mass production companies make their "bread and butter" from basic items but the higher level complex garment generates the higher return on investment (ROI) since these items are typically fashion driven with a seasonal window of sale.

Along the vein of country and region selection, it is important to note that different regions and nations make different things using different methods even at a time when internationalization of economic relations and globalization is progressing at break-neck speed. Since industrial production is organized around the making of particular products, it is in specific markets that competition takes place (Storper and Salais, 1997). The same holds true for outsourcing contractors within an industry like apparel and textiles; it is in production processes where outsourcing manufacturing is competitive. If cultural characteristics influence production processes such as the use of advanced technology to compress production times, and if highly-skilled labor creates a better product within the industry, then product specialization may prove advantageous in some countries and regions and not in others. In terms of attracting contracts with U.S. manufacturers, some countries may consider utilizing this kind of specialization as a national or regional identity.

The outsourcing movement from the West to the East is apparent and dramatic in the Eastern and Central European apparel production industry. Major Western retailers and buyers expanded their production contracting to lower cost regions of the 'post communist' Eastern Europe and Mediterranean Basin (Begg, et al, 2003). The concept of 'new regionalism' surfaced in a case study of the developing Mexico and the developed United States and Canada via NAFTA which has raised foreign direct investment (FDI) from the partner countries but not from the rest of the world. A major feature of this 'new regionalism' appearing everywhere joins a small, developing country with one or more large developed countries. However, the increased FDI may not sufficiently catapult the developing country to become an export-oriented industrialized (EOI) nation (Waldkirch, 2003). Still, another study identified significant differences between outsourcing intermediate goods or finished goods by stating that each type of sourcing has played a dominant role in trade growth but should be examined separately since each type of outsourcing requires different elements and partnerships (Kleinert, 2003).

Still, compiling location characteristics can be exhaustive and time-consuming. Since successful outsourcing generates a cluster of similar manufacturers, it may prove beneficial for a host company to "follow the pack" to where agglomeration occurs. In some instances, government policy aided such clustering in establishing Free Trade Zones (FTZ) to entice manufacturers with the promise of taxing only the added value of the product. Guatemala, El Salvador, and Honduras constructed manufacturing parks precisely for the purpose of housing these agglomerated industries.

2.5 Agglomeration

Observations indicate that economic activities are not spread homogenously in space, but clustered in concentrations of different sizes (Lambooy and Van Oort, 2005). As mentioned, Weber predicted that an agglomeration or cluster economy is expected when outsourcing practices are successful. The reason for agglomeration economies is encapsulated in the "core-periphery" relationship where centripetal forces produce a "snowball-herd effect" that include economies of scale, forward and backward linkages in production, trade costs, increasing returns in transport, concentration of firms and consumers, existence of suppliers, limited spread of information and embodied knowledge and a thick labor market (skill set specific). Centripetal forces take the production system towards equilibrium (Jovanovic, 2006). On the other hand, centrifugal forces move in the opposite direction and test the stability of the equilibrium established through centripetal forces. This means that the comparative advantage discourages spatial concentration of business and favors a geographical (spatial) spread of firms. Centrifugal forces favor regional/international wage differentials, relative height of land rents, competition for factors and consumers, commuting costs, pollution, congestion, traffic accidents, crime, infectious and other diseases, and sewage-waste disposal.

When firms are spread out (not clustered) and these other factors are considered in addition to those in the equilibrium model in site location, three outcomes are possible. In the first one, economic activity is so isolated that regions become specialized in a particular activity as evidence in North America which is less polarized than Europe. In

the second case, an economic activity may agglomerate in core regions by attracting labor and exploiting production opportunities that render other regions opportunity-less and labor-less. Thirdly, distinct economic polarization can lead advanced regions toward high incomes and low unemployment while leading depressed regions toward low incomes and high unemployment. If the equilibrium test fails, then agglomeration leads to deglomeration and the established equilibrium unravels toward disequilibrium (Jovanovic, 2006).

2.6 The Textile and Apparel Industry

The textile and apparel (clothing) industries were most likely the first manufacturing industries to become global. Since there are low barriers to enter the clothing manufacturing industry, it is one economic activity accessible to any country even those at the lowest levels of economic development; it is an industry that is geographically dispersed in both developed and developing countries that incorporates both new and old technology. Despite the simplicity of making clothes, this industry consists of very large-scale employers of labor (several million workers worldwide), especially the "sensitive" segments of the labor force: women and immigrants in tightly localized and sometimes isolated communities.

Textiles and clothing are the only industries in the world regulated like no other by special international trade restrictions as designated in the Multi-Fiber Agreement (MFA) which established import quotas to protect competition between developed and developing countries. However, this agreement ended on January 1, 2005 (Dicken, 2007).

Clothing production begins with manufacturing of the raw materials (most commonly, cotton) into yarn through spinning. The yarn can then be dyed and finished or directly woven or knitted into fabric. Fashion designers create silhouettes (prototypes) of styles and color ways for the targeted consumer market. Industrial engineers work with the pattern makers to cut, grade, mark, and nest the fabric for production. It is at this juncture that textile manufacturing transitions into production and/or assembly: sewing of ancillary supply components (such as zippers, buttons, snaps, elastic, etc., known as "trims") into basic garments, fashion-basic garments, and fashion garments. Upon completion, the finished product is inspected for quality assurance, packaged, boxed, and distributed to the retailer.

The type of garment construction is a key factor in determining where the garment is produced. A basic garment is a wardrobe basic of simple construction like tops and bottoms of easy-care fabrics with little embellishment or complex design. These items are the basis of most wardrobes and the individual pieces are generally inexpensive and are sold by mass channel retailers (high volume stores like Wal-Mart, Kmart, Target and club stores like Costco and Sam's Club). This type of product is produced in high quantities very quickly due to the simple construction, carries the lowest production risk, and is a low-margin (ROI) item. Basic garments are sold by price point. Since this is such a wardrobe staple or basic, the consumer can find these types of goods everywhere and purchase will be determined by the lowest priced available.

A fashion-basic garment is of simple construction with a fashion component. The word "fashion" denotes something trendy such as a basic top or bottom with a design or

embellishment such as a lace trim or screen print design. This is the most interesting category since consumer reaction will determine which embellishments and colors will be incorporated into year-round production (known as replenishment items) or discontinued. It is here that manufacturers expand their existing product line without requiring significant production changes at the manufacturing facility. This type of product is initially produced in moderate quantities but once adopted into the basic line, will be produced in higher quantities and like the basic garment, carries a very low production risk and is a low to medium margin item.

The most competitive clothing is the fashion garment which has the shortest shelf life of all clothing produced and competes with other brands offering a similar item of similar construction and in similar color ways. This category responds to the up-to-the minute fashion trends or specific holidays which means that production quantities and production times are limited; once the production of those goods is complete, the retailer or buyer would not purchase additional quantities. This type of garment is produced in moderate quantities leading up to the season or holiday. However, if there are problems with production quality, the manufacturer would not be in a position to re-do the item and those units would be considered a "loss" and sold in a discount or outlet store at a reduced price. The fashion garment carries the highest risk to the manufacturer and requires a manufacturing facility that is capable of producing first-quality goods in a short period of time. This means that all aspects of the supply chain and logistical coordination must be on time: the ancillary trims must be approved and at the manufacturing facility in time to begin production, the clothing and packaging bags,

hangers, and labels with tags must be approved once garments are off the production line, and appropriate customs documentation must be correct to transport the shipments in a timely manner (truck, ocean or air freight) to arrive in-port and clear customs without delay to reach the distribution centers. Timely execution of each aspect of the production chain is most critical with the fashion garment since this is the highest margin item produced that is style-oriented (Dicken, 1992, 1998, 2007)(Table 1).

The manufacturing of apparel is a "buyer-driven" industry. As such, enormous pressure is placed on the manufacturer to rapidly produce a variety of rapidly-changing products in an unpredictable consumer market. At times, the pressure from powerful retailers is so great that manufacturers are forced to search and find production contractors and facilities at lower costs regardless where in the world.

Global clothing production is generally dominated by Asian countries (China, Indonesia, Japan, Vietnam, and Thailand) with the next highest productions occurring in Mexico, the United States, Brazil and Latin America, Europe and last, in Eastern Europe. However, there are significant distinctions in this list of clothing producers. For example, Asian countries directly export clothing made in Asian countries whereas manufacturers based in the United States import clothing produced in other countries. This means that although the United States appears as the third largest clothing producer, the actual production does not take place in the United States by U.S. workers. The shipments of finished apparel are attributed to the importer of record which is the U.S.-based company.

The global trend of production reflects a significant increase in exports from China which exported 4% in 1980 but rose to 23% in 2003 whereas the European Union,

Hong Kong, the United States, and Korea (formerly heavy producers) have since decreased (Table 2).

By the same token, significant increases in imports by the United States (16.4% in 1980 to 30.2% in 2003), the European Union (23% in 1980 and 25.6% in 2003) and Japan (3.6% in 1980 and 8.3% in 2003) reflect greater demands for lower cost production beyond developed countries (Table 3).

Since 80% of textile and clothing workers are women, it is safe to conclude that the majority of exported and imported items are produced by women. As socio-cultural roles of women render them immobile due to familial and domestic responsibilities, the industry must come to them making outsourcing a perfect economic scenario for both the U.S. based manufacturer and the foreign contractor.

Previously, the clothing market was dominated by mass market retailers that demanded long production runs of standardized garments at low cost. As the market became more differentiated with frequent fashion/style changes common, production time in order to meet orders has become as important as the cost. Therefore, there is increased demand for shorter production times of complex garments at lowest cost possible—a tall order for any manufacturer.

However, in some regions, a restructuring of clothing production networks have managed to keep costs down while utilizing ancillary and clothing suppliers proximal to their market that compressed transit and production times. For example, with the onset of direct competition from China, Malaysia, Thailand, Indonesia, Vietnam and Cambodia, Hong Kong, South Korea and Taiwan shifted their production off shore. Hong Kong

firms set up plants in the Philippines, Thailand, Malaysia and Mauritius (later in Indonesia and Sri Lanka) to get around quota restrictions. Similarly, some Asian firms have established plants in Europe and North America to directly serve the developed country markets.

Another scenario of regional restructuring consists of "triangle manufacturing." Triangle manufacturing is when an overseas buyer (like a U.S.-based company) places an order from a Newly Industrialized Economy (NIE) such as Japan who in turn, shifts the requested production to affiliated offshore factories in low-wage countries (like China, Indonesia or Guatemala). The role of the NIE has transitioned from a supplier or contractor to middlemen in the production chain. Thus, global clothing production is simple in its complexity: lowest cost product at the highest quality in the shortest amount of time. The flow of production is highly labor intensive, uses low skill or easily trained labor and portions of the process and be fragmented and geographically separated with design and cutting in one location (typically the developed country) with sewing and assembly in another location (usually a developing country). Textile and clothing production knows no geographical boundary and these industries are shifting towards global regionalization. Still, at every geographic scale, these industries are influenced and dominated by the largest and most capital-intensive buyers and retailers in the business (Dicken, 1992, 1998, 2007).

The apparel and textile industry has a six stage development sequence. In Stage 1, simple fabrics and garments from natural fibers are produced in least developed countries while in Stage 2, clothing produced for export and described as "craft" garments are

found in less advanced Asian, African, and Latin American countries. By Stage 3, increased sophistication, quality and quantity is seen in more advanced ASEAN, Eastern Europe and China. Stage 4 still responds to mass demand of more developed and sophisticated fabrics and styles in countries that are in full-scale participation in the international trading systems with substantial trade surpluses: Taiwan, South Korea and Hong Kong. However, by Stage 5, production characteristics shift considerably as textile and clothing output increases but employment decreases signifying increased capital intensity, increased specialization, and increased technology (displacing workers). This stage faced increased international competition and affects Japan, the United States and Italy. By Stage 6, there is a substantial reduction in employment and the total number of units produced that is punctuated by severe problems of competition and substantial trade deficits commonly found in the United Kingdom, West Germany, France, Belgium, and the Netherlands (Dicken, 1992, 1998, 2007). Hence, since consumer demand is closely related to personal income, and since personal income is unevenly distributed, it is clear that production and trade characteristics are also uneven. More than twenty years after Dicken produced the global pattern of production matrix, much is still accurate today. In this case, fiber production and acquisition accounted for how one location could respond to consumer goods demand (fabric and clothing in this scenario), but the same holds true for how one location can attract U.S. manufacturing considering supply chain/logistics even domestically.

A study about global sourcing in the U.S. apparel industry (Gereffi, 2001) discussed the manufacturing emphasis on imports and production from Mexico and the

Caribbean rather than Asia. It specifically examined Hanesbrands' outsourcing practices from 1990-1998, a shared timeframe as the survey of this study. That study claimed outsourcing enacted a fundamental restructuring that required greater product specialization and price. The strong ties with global suppliers from low-cost countries were not only with manufacturing companies, but with the retailers who focus on their own product branding. As such, retail buyers are more involved in global sourcing and traditional boundaries between firms and contractors are blurred. Retailers and manufacturers compete for the outsourced contractors. By collecting global import data of apparel, the study concluded that U.S. apparel and textile manufacturers like Hanesbrands, Inc., prefer production in Latin America (specifically, Mexico) than in other regions like Asia. To test this modification of Weber's Location Theory and the Heckscher-Ohlin Theory, this research compares findings against those of the earlier study.

2.7 Research Questions

Upon review of the literature, the questions most pertinent to this thesis are 1) is proximity to the host company a determinant in securing the lowest-cost production as stated in Weber's location theory, 2) are there other site selection considerations such as abundant resource accessibility, labor availability, and cultural characteristics that determine product placement as described in the Heckscher-Ohlin theory, 3) does regional policy like NAFTA or CAFTA and the establishment of free trade zones promote or prohibit agglomeration of industry, and 4) does the current "west to east"

trend of outsourcing apparel manufacturing indicate a preference for Eastern regions (the Middle East, Near East and Asia) over Western regions (Mexico, Central America and the Caribbean)?

CHAPTER III

RESEARCH DESIGN

3.1 Research Hypothesis

The method proposed tests the hypothesis that Weber's location theory based on proximity is increasingly less relevant in today's outsourcing of apparel and textiles compared to Heckscher-Ohlin's theory based on the exploitation of natural resources and labor availability. If true, and based on outsourcing trends that feature a "west to east" migration in manufacturing, then it is predicted that the once-popular outsourced locations like Mexico, Central America, and the Caribbean will be replaced by favored locations in the Middle East, Near East and Asia.

3.2 Data Sources

A survey draws on the past experiences of twenty-five apparel/textile professionals such as industrial engineers, quality assurance managers, supply chain analysts and production coordinators employed in the outsourcing business units of multiple Sara Lee Branded Apparel divisions from 1995 to 2000. Each person is given two questionnaires asking participants to cite examples and explain the decision-making process in site selection and rank performance of contractors by country based on the three cultural characteristics. These include time sensitivity, on-time deliverables, and

in establishing a long-term relationship with the U.S.-based company. The survey next asks participants to describe 1) the type of products that were outsourced, when, and the approximate total value of the goods, 2) the type of products that were outsourced in Latin America and remained there, and 3) the type of products that were initially outsourced to Latin America and then transferred to Asia.

This research is to determine 1) why some outsourced apparel and textile production that was initially placed in Latin America remained in Latin America, and 2) why other production was placed in Asia. These two types of questionnaires are used to isolate a quantitative and objective result based on volume of production and total dollars invested. The qualitative survey elicits subjective responses and opinions based on professional and personal preferences in interfacing with contractors in different geographic regions. The findings determine if a site selection advantage exists in Latin America or Asia.

3.3 Research Limitations

Data on outsourcing (globalization) and site selection (location of production) is plentiful (Jovanovic, 2006; Stafford 1980; Scott & Storper, 1986; Storper & Salais, 1997). Comparisons of outsourcing practices across various industries including textile and apparel manufacturing are of interest as trends continue to evolve (Dicken, 1992, 1988, 2005; Hayter, 1997; Gereffi, 2001) and even the impact of corporate culture on outsourced locations have been discussed (Schoenberger, 1997). However, with the exception of Schoenberger's contributions, the majority of the research regarding

outsourcing and site selection has been mainly quantitative data from leading economic sources such as *The Economist* and the *Financial Times*; Gereffi obtained outsourcing apparel manufacturing data U.S. customs import data. The importer of record is typically the host company and the product category denotes the type of product manufactured, the quantities (volume) and total dollars invested. Hence, there is no qualitative data on apparel and textile outsourcing and site selection.

The limitations of this research are due to 1) the limited breadth of this study, and 2) the small sample size that was obtained from one company. Since apparel and textile manufacturers are quite secretive about what and where production occurs, other companies could be following outsourcing trends that are divergent from trends in this study but we would have no way of knowing. This research tested only 3 cultural characteristic variables rated "high" importance with the majority of the survey participants whereas other variables might not have elicited such similar responses rendering neither a positive nor negative overall response. The responses from the sample size of 25 professionals may not be sufficient to be reflective of apparel outsourcing experts within the industry. Hence, the surveys could have tested different combination of variables to obtain the truest combination of positive (advantageous) variables and the truest combination of negative (disadvantageous) variables in site selection. Also, surveying participants within the industry specialization from other similar-sized apparel companies would offer a broader view of outsourcing site selection in the industry rather than just one company. Clearly, a more comprehensive survey of larger numbers of outsourcing professionals is needed.

CHAPTER IV

CASE STUDY: SARA LEE BRANDED APPAREL/HANESBRANDS

Sara Lee Knit Products (SLKP)/Sara Lee Branded Apparel (SLBA) former subsidiaries of the Sara Lee Corporation and recently independently launched as Hanesbrands, Inc. (HBI) is one of the largest manufacturers of apparel and textiles in the world and is one of the two dominant underwear apparel manufacturers. Based in Winston-Salem, North Carolina, HBI owns the Hanes, Hanes Her Way, Just My Size, Playtex, Bali, L'eggs, Barely There, Wonderbra and Champion product lines and has the contract license for Spalding and Polo Ralph Lauren Men's Underwear. In the 2006Annual Report, Hanebrands generated $4.7 billion in net sales in fiscal 2005 and more than $350 million in income from operations (Hanesbrands, 2007). Hanesbrands Inc. stock is listed under the symbol HBI on the New York Stock Exchange. The company's daily trading activity, stock price and dividend information are in the financial sections of most major newspapers. In a recent survey, Hanesbrands products are found in eight out of 10 American households, and they are sold in hundreds of stores, plus Web and catalog. Hanesbrands hold either the number-one or number-two U.S. market position by sales in most of their competitive product categories: first category in t-shirts, fleece, socks, men's underwear, sheer hosiery and kids' underwear; second category in bras and women's underwear.

Prior to its aggressive outsourcing practices in the 1990s, Hanesbrands employed 3000+ professionals at the corporate headquarters and more double that number of semi-

professionals at peripheral manufacturing and distribution locations. Due to the multiple retail channels and forward linkages in supplier networks, Hanesbrands exerted a significant economic presence in every business location. As business trends ventured into the international sector through implementing outsourcing strategies, Hanesbrands instituted Global Business Practices (GBP) employee code of conduct as a standard guide since 1990. The reliance on the domestic and international supply chain facilitated the Global Standards for Suppliers (GSS) as a formal supplier code of conduct in order to partner with any Hanesbrands entity. In place since the mid-1990s, it was one of the earliest criteria offered by a major apparel and textile manufacturer. By the late 1990s, Hanesbrands was pivotal in the creation of the Worldwide Responsible Apparel Production (WRAP) program since establishing common standards in social compliance while the Global Environmental Management System (GEMS) ensures smart environmental principles integration into day-to-day business operations of waste minimization, resource conservation, minimizing overall environmental impact and enhancing value. Today, Hanesbrands employs 35,000 international employees and 20,000 in the United States and has direct business interests in 40 countries (Hanesbrands, Inc., 2007).

4.1 Geographic Area and Outsourcing Practices

The geographic location of this study is confined to Mexico, Central America and the Caribbean, the Middle East, and Asia where outsourced manufacturing occurred from 1995 to 2000. This paper will study the relationship between the Host Company

(Hanebrands, Inc.) and the outsourced contractor by identifying the different manufacturing methods employed in outsourcing intermediate goods or finished goods as described in three models. Hanes outsourced and partially-outsourced manufacturing in three models. Model 1 features internal production of the textiles (cut parts) and internal procurement of supplies and trims that re assembled (sewn) in a separate company-owned factory (both domestic and international locations) and follows the pre-1970 Fordist method popular in the 1950s-1970s. Model 2 is a quasi-Fordist Foreign Direct Investment method of intermediate goods featuring internal production of the cut parts and procurement of supplies that are "kitted" and shipped to a contractor factory for assembly from the 1980s to the mid-1990s. Model 3 features the purchase of finished goods (the complete packaged product) from the contractor made to Sara Lee garment specification since the 1990s to the present.

The advantage of Model 1 lies in production and quality control from the textile production to the assembly. The textile plant and assembly plant have advanced notice of the styles and fabric construction ahead of time since internal communications are efficient. Transition from one product line to another is smooth and seamless. The disadvantage of Model 1 consists of the inflexibility of the production. Since the volumes are large, the ability to respond to last-minute customer changes to the order can be costly in time and materials.

The advantage of Model 2 lies in the reduced labor and tariff costs while maintaining quality textiles and the reassurance that all the necessary trims are procured to finish the product. Since trade quotas only require duty on "value added" from the

assembly, the savings on importing high numbers of finished goods is significant. The company has saved on a lower hourly rate of sewing for the international worker whose health insurance and worker's compensation rates are lower than in the U.S. The contractor reports weekly production results and even though the assembled goods are not yet received and verified in the distribution center, can receive payment for the completed work. The disadvantage of Model 2 consists of constant monitoring by U.S.-based sourcing industrial and quality engineers to "baby sit" the contractor with frequent trips to the assembly plant to ensure timely execution of production schedules and to evaluate quality standards. Non-engineers frequent the contractor locations to ensure that labor laws are not violated while internal auditors monitor the financial processes. If a discrepancy is discovered from what is reported as assembled compared to what is received in the distribution center, then a monetary shuffling of payments occur until the contractor's account is balanced.

The advantage of Model 3 lies with the contractor's assumption of all the risk associated with the procurement of the textiles and trims and in the production and packaging. In this model, the U.S.-based company receives samples (fabric, trims, and color) for approval prior to the contractor beginning production. All construction and packaging specifications are finalized. An outsourcing industrial or quality engineer is typically present when production begins. The contractor produces the product as it appears "package ready" on the store shelf. Once the freight forwarder and freight broker verify the number of shipped goods from customs, the contractor is eligible to receive payment. The disadvantage of Model 3 is greater for the contractor than the

manufacturer since any discrepancy can result in a rejection of the goods. The contractor has no guarantee that the manufacturer will renew a contract and may be left with no capacity for the factory.

4.2 Study Surveys

The survey takers were pre-selected by the researcher who had previous experience as an outsourcing professional at Hanesbrands, Inc. The targeted individuals worked directly in various aspects of outsourcing and after brief discussion with the researcher, agreed to participate in the 30-minute survey without compensation. The researcher asked the survey takers to review old agendas and files (if available) to refresh their memory of the 1995-2000 timeframe. Survey takers gave their email addresses so the researcher could forward the survey. Direct data collection by interfacing with the survey takers proved problematic since the majority of them are no longer employed with Hanes and do not live locally. Hence, a remote method was implemented since the researcher did not want to know "who said what" in assessing and collecting the questionnaire responses.

When the researcher sent the questionnaire to the survey takers, each person was given an email user identification and password on Yahoo! Mail, a free virtual mailbox. Upon completion of the survey, each participant was to send the completed survey to the researcher from this multi-user email preventing the researcher from knowing who sent the survey and the ability to identify "who said what." The researcher never disclosed the identity of participants to anyone and the completed questionnaires were only reviewed

by the researcher. The Yahoo! Mail was deleted once all surveys were submitted (See Case Study Surveys 1-3).

4.3 Data Collection

The General Information (Survey 1) yielded 25 survey takers employed as Industrial Engineers (8), Vice-Presidents (2), Directors (3), Quality Assurance Engineer (1), Quality Assurance Manager (1), Outsourcing Managers (2), Materials Managers and, (4) former Plant Managers (4) of company-owned facilities in the United States and in Latin America. Of the twenty-five surveyed, 18 are licensed professional engineers. The gender breakdown of this survey group is predominantly male (20) with five women.

The general profile of the survey taker reveals an average age of 35.5 years old and male. Industry experience is dependent on age which ranges from 25-57 years old but over all, most of the survey takers had more than 10 years experience in manufacturing apparels and textiles (not all with Hanesbrands, Inc.). They averaged a 60-65 work week and if travel was a part of their job description, would average a rate of 50% but experienced increases as high as 75-100% during peak production seasons (dependent on the need at the manufacturing facility such as the enlistment of new production facilities or the introduction of new product at existing contractor facilities). Each survey taker averaged management responsibilities of 3 product lines. The majority of the survey takers were “D” players in the organizational matrix that denoted a division president as an “A” player who is visionary and inspirational, a division senior vice president and a divisional or functional vice president as a “B” player who plans

strategies and approves the direction of operations, and a director as a "C" player who plans and delegates details of the strategies. "D" players are pivotal employees that "make things happen" by executing the divisional strategies and plans. The "D" level of outsourcing professionals experiences the least turnover in personnel since these employees usually possess multiple language capability and experience in the international sector; they typically operate independently from fellow "D" players in other divisions. Outsourcing "D" employees are a minority in the company.

The remaining questions from this section about the number of direct and indirect reports varied greatly for those that answered so these results were not calculated. Still, these outsourcing professionals often have few direct reports (less than a dozen) but hundreds of indirect reports (considering the total number of contractor employees).

The Quantitative Section (Survey 2) of the survey yielded that all Hanesbrands, Inc. product lines were serviced by the survey takers: the licensed Polo Ralph Lauren Men's Underwear, Hanes Underwear, Casualwear, T-shirts, and Champion products for men, women, and children.

The production locations were determined based on the type of manufacturing model implemented for the product line and the production facility. All respondents asked for clarification of "domestic production." The word 'domestic' refers to the United States but in Hanesbrands, Inc., domestic can refer to "in house" production that often occurred in company-owned facilities offshore in Puerto Rico, Dominican Republic, Jamaica, Honduras, Costa Rica, and Mexico. However, each survey taker answered question #3 in two ways: considered the standardized definition of 'domestic' in

reference to the United States and considered the Hanesbrands, Inc. definition as "in-house" production offshore.

No survey taker identified their annual budget in dollars and cents. Yet, every participant answered the percentage of their annual budget allocated to domestic and international production. No survey taker identified the actual return on investment (ROI) but did answer in a percentage range since some products of a product line earn a better return than others. Hence, they provided an ROI range versus specific numbers per manufactured item. No survey taker divulged the approximate cost of production per unit or dozens which is standard in the industry. Revealing actual investment would enable price undercutting by competitors and could lead to disgruntled customers once the retail price markup was ascertained.

Product category and construction complexity were answered by country and distribution channel (mass production for mass channel distribution and specialized production for specialty/client-specific distribution). In lieu of itemizing each product by name, the researcher grouped product into Mass or Specialty production. Note that in the "where produced" category, countries are listed in order of production allocation volumes. A series of three numbers in parentheses accompany each country listed that denotes 1) the perceived time sensitivity by the manufacturing facility to produce goods according to host company production schedule, 2) the manufacturing facility's ability to deliver the production on time, and 3) the perceived commitment to establishing long-term relationship between the contracted manufacturing facility and the host company. All numbers are ranked on a scale from 1 to 5 (1= Poor, 2= Below Average, 3= neither Good

nor Bad, 4= Good, 5= Very Good/Excellent). Thus, the researcher revamped the Quantitative Production Data Table (section two) to include the ranking responses from the Qualitative Survey (section three).

The Quantitative Section (Survey 3) of the survey revealed that all Hanesbrands, Inc. survey takers have actively pursued potential apparel contractors both directly and indirectly. Since apparel outsourcing is a small fraternity, those in the industry are well-acquainted with outsourcing professionals in competitor companies. According to the respondents, it is common for outsourcing professionals to experience conversations about possible contractor facilities in two ways: formally and informally. High rates of travel is a standard component of outsourcing apparel and textile and every survey taker stated that they often "run into" other competing outsourcing professionals in major cities around the world usually at major airport hubs as they connect and share the same flight plans and similar destinations. It is in these informal settings that outsourcing discussions occur albeit without revealing production specifics. Yet, if an apparel manufacturer needs to place additional production and does not have a manufacturing facility, all the survey takers stated that they have "a list" of contacts that they would call and formally request a recommendation. The usual questions about the potential contractor's performance are expected and typically, the outsourcing competitor may facilitate introductions to connect the manufacturer with the potential contractor. This practice of "sharing" is common in apparel and textiles manufacturing.

However, 18 out of 25 respondents stated that during their outsourcing career at Hanesbrands, Inc., they were "told" to use a particular contractor by senior management

at least once denoting a "behind the scenes networking and deal-making" taking place outside of the standard processes of site selection and contractor management. None of the respondents cited names of company management or contractor facility.

In every contractor selection (including site selection) requires a series of evaluations by engineering (to assess if the facility has historical and technological capability), by internal audit and human resources (to approve contractor business practices), by merchandising and design (to assess the trim components, garment construction and color verification of the finished product), and by security (to perform a series of background checks that the potential contractor has no history of legal infractions or customs violations). In this study, only engineers and directors performed formal evaluations resulting in 20 of the 25 participants.

When assessing the 1) contractor and 2) country preferences by survey participants, the researcher selected the top five answers for each category (mass or specialty products). The outsourcing criteria was the same for both mass and specialty products and the researcher ranked the responses according to survey respondents (Figure 1 and Figure 2).

The responses from this section were very detailed. All participants included past experiences to qualify their statements. Many of the stories were structured in a "compare and contrast" scenario from meetings the outsourcing professionals had with Asian contractors versus Mexican and Central American contractors. Respondents included anecdotes from on-site experiences with contractors in both regions and categorized favorable comments as "advantages" and unfavorable comments as

"disadvantages." Some survey takers included contemporary situations as a point of reference such as the Kathie Lee Gifford sweatshop scandal which resulted in aggressive adherence to social responsibility strategies and environmental impacts on manufacturing such as Hurricane Mitch. The majority of the survey participants qualified their opinions with long explanations to demonstrate a rational and objective assessment versus racial, ethnic, or social prejudices.

CHAPTER V

DATA AND METHODOLOGY

The methodology for testing the hypothesis will consist of quantitative and qualitative surveys of outsourcing professionals employed in the apparel and textile manufacturing industry. All survey participants are pre-selected by the thesis researcher to ensure that these individuals have expertise and knowledge of outsourcing processes *specifically.* Since these individuals are responsible for the manufacturing of specific products, they are accountable for the profit margins and the return on investment (ROI). Hence, they influence the site selection decision.

By eliciting responses through a blind survey, the researcher has no knowledge how each participant responded and each survey taker's privacy is protected. Each professional was sent the Word document survey via email from the researcher and given approximately 90 days to complete the 30-minute questionnaire and instruction how to return the completed survey. Upon completion, each participant was given a user identification and password to a free email account through Yahoo! set up by the researcher. By logging into the account, the researcher had no means to ascertain who sent the survey responses since all the questionnaires were submitted using the same user name on the Yahoo! account. Each participant was given one questionnaire with a coded letter in the subject line in order to account for all surveys; all 25 questionnaires

distributed were received. Once the results were tabulated and recorded, the researcher shredded all hard copies of the surveys and no digital copies exist.

The anonymity protects these respondents from possible legal or professional repercussions from divulging sensitive information about outsourcing practices while employed with Sara Lee Branded Apparel/Hanesbrands. The apparel manufacturing outsourcing industry is a close-knit fraternity even those employed by competing companies. Due to the protection of anonymity, the findings should yield candid responses about site selection and outsourcing manufacturing to contractor facilities. The participants have no logical reason to falsify or exaggerate real-life experiences or opinions. As such, this research will be able to evaluate whether the characteristics described by Heckscher-Ohlin in conjunction with cultural characteristics impact the site selection decision more or less than the characteristics of Weber's location theory and supply chain low-cost methodologies.

Each survey taker was asked to respond to a three-part questionnaire. In section one, survey takers are asked general information questions. This section will "place" the employee in the corporation and identify his/her job title, scope of responsibilities, years of industry experience, his/her level of responsibility including direct and indirect reports, the approximate number of hours are spent working (daily and weekly), the number of work-related travel per month, and how many product lines is in his/her area of responsibility (either by product brand such as Hanes Her Way, or by product type such as woven cotton, cotton/spandex blend or cotton jersey, or by geographic location such as any product manufactured at a specific facility).

Section two of the survey addresses the quantitative scope and identifies specific product lines, geographic and facility location, annual budgets, the return on investment and the level of manufacturing complexity. Product complexity, Product Categorization, and Product Proficiency was ranked on a scale from 1 to 5 (1= Easy, 2= Somewhat Easy, 3= neither Easy nor Hard, 4= Some Complexity, 5= Very Complex to Difficult). Product Complexity denotes the number of steps required to sew the garment. Product Categorization distinguishes between an "assembled" and "finished good" product. Product Proficiency denotes whether that particular factory had previously produced the same or similar garment affecting proficiency rates.

Section three of the survey asks qualitative questions about site selection and contractor performance evaluation. Survey takers identify the required characteristics a contractor should possess to secure a Hanes contract and if 1) contractor selection was internally or externally influenced, 2) if some contractors in one location outperformed contractors in other locations, and 3) if the survey taker preferred some countries and some contractors over others. Contractor performance in 1) time sensitivity-a sense of urgency, 2) on-time delivery, 3) the establishment of long-term partnerships with the U.S. manufacturer were ranked on a scale from 1-5 (1= Poor, 2= Below Average, 3= neither Good nor Bad, 4= Good, 5= Very Good/Excellent).

CHAPTER VI

FINDINGS

The results of the survey from Section One indicate that the majority of outsourcing professionals interfacing directly with contractor facilities are predominately male and industrial engineers. In 1995, Hanesbrands, Inc. showed concentrated manufacturing activity in Latin America (Table 4 and Figure 3).

The results of Section Two are divided into two parts: 1995 and 2000. In 1995, mass production was concentrated in Latin American locations at manufacturing facilities owned by Hanesbrands, Inc. (Puerto Rico, Costa Rica, Jamaica, Honduras, and Mexico); specialty production was concentrated in Latin American locations at company-owned manufacturing facilities (Honduras, Mexico and Costa Rica) and at contractor facilities in El Salvador and Haiti. Both types of product utilized manufacturing models 1-3 with low to intermediate construction complexity. The returns on investment (ROI) for mass product landed in a conservative range (26% - 32%) while specialty products fared better (35% - 45%). However, 1995 mass product manufacturing would generate greater total dollars in revenue based on higher units of production versus the lower production rates of the specialty product at a better ROI.

In 2000, mass production reflected continued concentrations in Latin America (Mexico, Costa Rica, Dominican Republic and El Salvador) with the addition of an Asian country, Turkmenistan. The returns on investment (ROI) changed little and the

method of production eliminated model 1 but continued with models 2 and 3. At this point, the construction complexity of the garment has increased and the high volume of units produced remains high and constant. Conversely, specialty production indicates a significant shift in where production is focused toward the Middle East (Pakistan, Egypt and Israel), Asia (China, Indonesia, Philippines and Macau) with Mexico representing the only Latin American country and Madagascar as the only African nation identified by survey takers. The return on investment is significantly improved overall and product construction complexity has greatly increased. Yet the most startling change is the elimination of models 1 and 2 of the manufacturing method. By 2000, specialty production focuses on contracting a completely finished product from the contractor through utilizing model 3. The contracted orders remain at intermediate volumes but with more contractors, there is an increase in total units produced and totals dollars generated (Figure 4).

This matrix denotes the participants' responses to cultural variables of "time sensitivity", "on time delivery" and contractor commitment to "establishing long-term relationship" with the host company. In 1995, both mass and specialty production showed manufacturing facilities that ranked high in every category (mostly 5s with a few 4s). It must be noted that these facilities are company-owned so management at these locations share similar Hanesbrands, Inc. philosophies and commitment to strategies as top management at the corporate headquarters.

However, the ranking of manufacturing facilities in these three categories wane in 2000. The mass products show high marks for only one Latin American location (Costa

Rica) and in Turkmenistan while the three remaining countries (Mexico, Dominican Republic and El Salvador) mostly fared "neither good nor bad". By the same token, specialty products show high marks in 2000 for all the contractors in the Middle East (Egypt, Pakistan and Israel), Asia (China, Indonesia, Philippines and Macau) and Madagascar. The only low score in the specialty category among contractor facilities were those in Mexico (Table 6 and Figure 5).

The data collection from Section Three offered the most candid, non-quantitative responses of the survey. Across the board, all responses indicated a strong focus on safety and stability of the location and facility. While corporate headquarters was most interested in accessibility and availability of natural resources like water and electricity due to cost differentials compared to the United States and tariff costs, outsourcing professionals tended to concentrated on in-factory operations.

The most significant issue in contractor selection is education and training of professional management, plant management's ability to lead and direct the employees and the ability to motivate the employees to delivery production on time and protect the Hanesbrands, Inc. product by producing the most first quality goods. The second tier of interest is in the maintenance of high air quality and water quality to manufacture the best product possible and in the sewing/assembly proficiency of labor. Respondents continued to refer to physical safety of the manufacturing plant and the workers as a high priority (Table 6).

Yet, the most significant responses revealed a preference for contractors in Asia versus Latin America.

The preferences discussed by 16 of the 25 respondents about Asian contractor management and Asian laborers (high quality performance, high quality standards, highly motivated workforce, educated workforce, commitment to long-term relationships and high priority responses to the host company) all indicate cultural philosophies and practices. Meanwhile, 9 of the remaining respondents cited only 2 reasons they preferred Latin America (familiarity in doing business in those countries and less travel time due to close proximity to the United States).

In identifying the advantages and disadvantages of outsourcing capability in Mexico and Central America, respondents stated the following: the greatest advantage to securing those contractors is due to contractors' knowledge of American corporate culture (such as high production volumes, short turn-around times, and focus on Human Rights issues). These countries are perfect outsourcing locations for basic and basic fashion products that require low skill level, minimum technology, simple construction, and easy care fabrics. Mexican and Central American contractors have experience in producing high volumes of simple product (called "jamon" in the industry, which is "ham" in Spanish—a never-fail-hard-to-ruin product) very quickly. Since the financial risk is very low and the non-pecuniary incentives alleviate the host company from agreeing to increasingly higher wages to retain employees, entering a relationship with a U.S. company is easy. In Mexico and Central America, employees in some contractor locations were offered use of water at the manufacturing facility as a fringe benefit. Hence, both the men's and women's bathrooms often displayed wet laundry hanging from the rafters in the ceilings as employees would arrive early to work with their dirty

laundry and do their washing prior to their sewing and assembly duties. The clothing would hang to dry throughout the day whereby the dry clothing would be collected at the end of the work day and return home with the employee. In the majority of the contractor locations, the U.S. companies were given a reduced cost for water usage in the manufacturing facility; allowing the employees use of the water on the company's premises was a freebie to the company and the employee. The contractor plants increased hot meals to the employees from one to two (breakfast and lunch) to remain competitive in relation to the competitor contractor locations in the industrial business park. As industry within the business park grew over time and attracted employees from the same communities, "keeping up with the Joneses" was imperative in employee retention.

Employee transportation to and from the business park and access to health care are other non-pecuniary benefits afforded the contractors by the U.S. company. Public transportation to the industrial sector of the cities was unreliable and undependable and often jeopardized an employee's ability to maintain steady employment within the business park. Hence, mini buses were contracted to transport employees to and from work enabling a safe and reliable mobile method. During weather changes during the monsoon season of high rains and threats of flooding, the company-provided transportation was especially appreciated by workers and management. Survey participants recalled that Hurricane Mitch in 1998 provided the U.S. company the opportunity to aid employees in areas severely affected by the hurricane. Clothing, food, personal products and medical supplies were shipped from the Hanesbrands corporate

offices to Honduras, El Salvador and Costa Rica. Company and contractor facilities were opened as shelters to the community. When employing significant numbers of a community, the U.S. company often invests in local issues such as literacy (by donating books and providing tutors), water quality (by donating supplies or monies to local municipalities), and road construction. Although this level of engagement appears exclusively beneficial to the local community, the company also benefits by assisting in the expansion and maintenance of the infrastructure (Table 7).

The disadvantages to operating in Mexico and Central America are issues outside of the manufacturing facility: low technology capability, low education and training, and high "plantation" mentality. Survey respondents stated that in the majority of the contractor facilities, only senior management possessed bachelor's degrees and some English language capability while almost all middle management and factory employees achieved secondary to preparatory (high school) education levels with no English-speaking ability. As such, the host company is dependent on senior management in the manufacturing plant to accurately disseminate information to everyone else in the facility such as understanding of product assembly (the sequential steps to efficient and correct assembly of the product) and packaging to human rights policies. If information is inaccurately conveyed, then the incidence of high manufacturing error and high off-quality is probable. If management does not establish and enforce global compliance standards (social responsibility) in relation to human rights issues, then the U.S. company can be subjected to litigation and negative press. When the Kathie Lee Gifford scandal about "sweatshops" and factory worker exploitation in 1996 erupted, all apparel

manufacturing companies re-evaluated their operations. Several U.S. manufacturers banded together to create standards of global compliance and attempted to form a governing entity that would not only police the industry, but all industry participants as well. By extension, these standards would also apply to outsourced contractors worldwide. At this juncture, Hanesbrands charged all outsourcing units to coordinate efforts with internal auditors to ensure compliance in all manufacturing facilities, especially with contractors.

Since Mexico and Central America has a long history of manufacturing partnerships with U.S. companies, survey takers responded that contractors were confident in maintaining contracts even if on-time deliverables were late or if production efficiencies fell below operational standards. The demand for Mexican and Central American labor was sufficiently strong that if an outsourced manufacturer lost a contract, there was little reason to worry since many more American companies were waiting in the wings to secure that contractor. Hence, competition for U.S. contracts and long-term relationship building were low.

Survey respondents mentioned the ever-prevalent concern of the "plantation mentality" with contractors in this region. "Plantation mentality" is a top down type of management where all decision-making and authority occurs at the highest levels and controls all flows of information and agenda setting of the manufacturing facility. Workers from mid-level management to those on the factory floor are prohibited from any decision-making, no matter how minor. As such, top management assumes all the responsibility and accountability of the good and bad that occurs in the plant; all other

workers are absolved of any responsibility. It is a "do as you're told" management style. As the host company provided the various types of production (models 1-3) with the ancillary supplies and specification instructions, management and factory workers followed the instruction to the letter; if an error was present, the manufacturer regularly produced the incorrect product. Critical thinking skills were low in these plants which required constant "babysitting" by outsourcing teams (usually industrial and quality engineers) housed at the host company. This means that as each new product was launched on the manufacturing line and during peak production seasons (like product volumes for back-to-school), host company personnel traveled to the contractor facility to supervise production runs. Hence, simply constructed basic and fashion basic items was the best match for contractors in this region; anything more complicated can prove troublesome and costly for the host company (Table 8).

Still, some surveyors aren't convinced that this type of management style is acceptable to all the workers in a contractor facility. According to some that conducted on-site inspections, floor factory workers surreptitiously found opportunities to communicate with the visiting personnel to apprise them of production and compliance violations such as the late distribution of payroll checks and pressures to work extra hours without pay. The plantation mentality benefits management who, under this system, is the only voice and only contact with the host company while others in the plant are rendered silent. Since the majority of floor workers have low educational attainment, are illiterate and do not possess satisfactory English-speaking skills, management is

confident that much of the on-site goings on will remain undiscovered by the host company.

The advantages of working with Asian contractors are centered on high technology capability, high education of labor, and high dedication to cooperation and long-term partnership with the host company. All respondents agreed that the Asian interest in anything American is beneficial to a productive relationship. Due to high technology interest and usage throughout Asia (cell phones, I-pods, MP3 players, portable computers, and palm pilots), the dissemination of American culture has reached even remote areas of the region. As such, Asian companies are knowledgeable about American emphasis on productivity and efficiency and all the manufacturing facilities structured their operating standards along American guidelines in an assimilation of sorts. Contractor managers are often more educated than their American counterparts (with many studying in the United States), are up to date on the latest technological advances in manufacturing (such as new methods of salt-washing denim) and the latest trends (like the newest methods to produce a better screen print graphic). Surveyors encountered a "meeting of minds" between the U.S. host company and the Asian contractor.

On-site visits by the host company personnel differ significantly from visits to Mexican and Central American facilities. The contractor meets with the American counterparts at the beginning of production ramp-ups to discuss each aspect of assembly and packaging. Every manager is included in the meeting where each specification step is dissected and examined; managers are given opportunity to ask or clarify any part of the assembly. Once a clear understanding is obtained, every manager reports to the

manufacturing floor and sewing teams are assembled to receive instruction and learn the correct way to manufacture the garment. This same open exchange of questions and comments is permitted of every floor worker prior to the first production runs. It is this preciseness and collective learning that underscores the teamwork environment and minimal probability for error resulting in high first quality goods.

Survey participants stated that Asian contractors are cognizant to please the host company in order to maintain a long-term relationship and obtain subsequent orders. As equal partners, Asian contractors often suggest improvements on manufacturing and assembly which yields a better product. However, some surveyors found this aspect to be a disadvantage instead of an advantage. In order to make a sequential or methodological change to a product specification, the changes must be submitted to the host company's design, marketing, merchandising, engineering, and quality teams before implementation can occur. Retracing steps to improve the product can be problematic since all divisions must approve and sign-off on the revisions; some host company managers are amenable to a better product while others are irritated with additional work on a product that had already been approved. U.S. companies that are accustomed to a contractor facility taking direction without question may find it bothersome to interface with the Asian contractor that would attempt to direct the host company. Still, the majority of the survey participants welcomed the critical thinking and production improvements. I t is this forward-thinking variable that gives the Asian contractor a manufacturing edge over the Mexican and Central American contractors. The U.S. Company can place every product category (basic, basic fashion and fashion) with an Asian contractor since they possess

the combination of technology, critical thinking, and high performance to provide a successful outcome for the host company, the contractor, and ultimately, the consumer.

Survey participants stated that entering a relationship with the Asian contractor was beneficial to the host company even though many surveyors were uncomfortable in Asia. The most common reason for hesitancy in using an Asian contractor was due to the host company's lack of knowledge about Asia, its people, the languages and the distinctions between each group. As a region, Asia appears homogenous but upon closer inspection, surveyors encountered drastic differences between contractors in Japan, Indonesia, China, the Philippines, and Thailand. U.S. apparel manufacturers were unfamiliar with anything Asian but appreciated the high level of professionalism, the high emphasis on education and high performance, and the application of newer technology in their manufacturing facilities.

Apart from unfamiliarity with Asia, the disadvantages of working with a contractor from that region are distance from the United States, a drawn-out price negotiation process, the strong work ethic, and the lack of non-pecuniary incentives resulting in higher wage packages. The survey participants routinely traveled to contractor facilities which, if departing early Monday morning, would land them in the foreign country by early to mid-afternoon. Scheduling a 4-5 day visit, the host company personnel usually returned home by Friday evening. However, when traveling to Asia, the host company personnel actually spent one full day traveling to the country and one full day returning to the United States. This required at least a 2 day extension to a week-long trip which annoyed almost all the survey takers. It means that in order to achieve

the same objectives with the contractor facility as it relates to production, the host company must spend more days out of the office just due to distance alone. Additional traveling days elevates the cost of travel from extra days in hotels, extra meals, and extra vehicle rentals. Although the division implements cost savings by simply outsourcing, the additional expenditures due to travel is simply a point of contention in budget management.

As stated earlier, Asian contractors consider themselves equal to their American counterparts (although all the survey takers believe that the Asian contracts actually consider themselves *superior* to their American counterparts), the price negotiation process is drawn out. Mexican and Central American contractors haggle less over price points per product whereas Asian contractors are meticulous in assessing and arguing production costs. One surveyor related an incident where an Asian contractor based his case for a higher purchase price by calculating the number of stitches for each product and argued that since some fabrics were denser/heavier weight that required double stitching along some seams. The American engineer was dumb founded that the contractor's analysis was infinitely thorough that the higher price point was granted; he had never had that kind of experience with *any* contractor anywhere. Another engineer stated that at the end of a long week visiting multiple contractor facilities, he was due to negotiate prices on a new product line. Tired and exhausted, he was not in the mood to haggle and when the first offer was made by the contractor; he quickly conceded. Believing that the contractor would appreciate the speedy approval, he was surprised to learn that the contractor was offended and viewed the rapid acquiescence as an

unwillingness to engage in a meaningful exchange. The engineer quickly reversed his position and the negotiation process began which resulted in the exact price point he had approved earlier. However, the contractor perceived that the price struggle represented teamwork, partnership and mutual respect.

The most significant drawback of utilizing an Asian contractor revolves around the Asian work ethic otherwise known as the "workaholic ethic." Every survey participant complained and criticized the Asian tendency to work long and hard. One surveyor stated that the contractor continually pushed for better production results (higher volumes without compromising quality) which confused the host company. The price points had already been negotiated and the purchase orders were unchangeable. The host company was unable to reward the contractor and the contractor's dedication to superior performance perplexed the Americans; conversations even while socializing, revolved around work.

Survey participants stated that their overall impression of working with the Asian contractor was significantly more positive than negative and approximately half of the respondents wanted to include non-pecuniary incentives into the employee wage package. However, based on statements from survey takers, it appears that Asian contractors take on an obligatory role in caring for their factory workers. They are serious and responsible for everything and everyone in the facility and do not require input from the host company. No contractor was ever late with employee payroll or non-compliant in social responsibility. Conversely, Mexican and Central American contractors required the host company to provide the incentives that would enable employee retention. In

1998 when a local labor strike jeopardized manufacturing in rural Mexico, the contractor owner and managers were prohibited from entering the plant (due to striking lines and violent protests). As such, they were unable to distribute paychecks to the employees. Recognizing this situation as a potential problem for Hanesbrands on the legal and public affairs fronts, corporate sent an engineer to the location to pay the employees. The host company was responsible to remedy a situation that was mismanaged by the contractor. All respondents stated that based on their experiences in Asia, no contractor there would have required host company intervention to remedy a local problem.

The results from the Outsourcing Capability Comparisons were startling and revealed that although Hanesbrands placed similar products the world over, some contractors (like those in Asia) have the capability and flexibility to produce any product where other contractors do not. For this reason, Hanesbrands could maintain its competitive advantage through appropriate product placement with the appropriate contractor: simple basics to Mexico and Central America and basic fashion/fashion products to Asia. Instead of viewing these contractors as competitors, the host company positioned them as complementary contractors by focusing on the strength of each facility.

When asked to comment on the site selection process, all respondents stated that proximal location to an inexpensive natural resource was the primary driver and motivator of outsourcing. Since the majority of these locations are in developing countries, a U.S. company is generally confident that local government policies would welcome the FDI to their community. In Mexico and Central America, several of these

locations created industrial business parks in a Free Trade Zone (FTZ) a short distance from the airport or maritime ports. In doing so, supplies and trims were imported and the U.S. company was only taxed on the *added value* (the assembled and finished good) since the product was not meant for the local consumer market, and then exported back to the United States. The tax break significantly impacted the ROI of the several hundred thousand units manufactured annually.

The second motivator was an available labor force that either possessed or could quickly possess the skill set to manufacture the product at a significantly lower wage than American factory workers. Life in the industrial park and FTZ enabled agglomeration. The park housed multiple contractor facilities that serviced contracts with major U.S. apparel companies such as Calvin Klein, Donna Karan, Tommy Hilfiger, and Liz Claiborne.

Economic survivability of the community was closely tied to employment in the business park. As stated earlier, Hanesbrands included non-pecuniary incentives as part of their wage packages. At the end of every calendar year just before the month-long break for the holidays, all apparel manufacturers formulate the annual wage increases for plant employees. The understanding among the factory workers is that if the wage increases are insufficient, they will seek employment with another contractor within the industrial park. Hence, human resources and compensation professionals are quick to "hear" what other contractors are paying in order to retain employees when manufacturing resumes in January. Hanesbrands typically paid more than the highest rumored wage within the park and in doing so, established themselves as a power

employer. Adding water usage rights and two hot meals a day sealed the deal with factory workers which resulted in very low absenteeism, very low turnover rate, and very low work-related accidents.

The benefits of agglomeration in Mexico, El Salvador and Honduras created apparel specialization and attracted workers to the industry. Contractors worked together to establish the rules of the industrial park and subjected factory workers and delivery trucks to security check points. Since the park was within the FTZ under specialized tariff schedules (taxes on the value added), it was imperative that no finished product (regardless of brand), ever left the park and floated into the local market. Doing so jeopardized the FTZ manufacturing status so adherence to security served as a form of brand and park protection. All contractors and factory workers benefited from compliance to security standards and all would suffer if standards were fractured. As such, each U.S. company paid handsomely for tight security within each contractor facility and regularly paid "park dues" to protect their product.

As is customary in the apparel and textile industry, many manufacturers recruit aggressively from the competition. Therefore, there are informal discussions among contractor management teams about management transitions with other contractors. It is common to "share" factory workers and senior managers (although not simultaneously) as contractors within the park look after each other. Some survey takers shared instances when one contractor loaned space on his truck to carry a couple of pallets to the port for another contractor or when one contractor loaned some thread to a competitor whose own thread was on backorder. If they had not made these "loans" then some plants would

have closed early or temporarily suspended production. This kind of event creates uncertainty and insecurity among factory workers that reverberates throughout the park. By "helping" the competing contractor, the manufacturer ensures that his own production schedules are not compromised.

Yet interestingly, Asian contractors discussed in this study have not reached an agglomeration state. One characteristic that is present in Asia and not in Mexico and Central America is the "triangle" contractor or middleman. This entity is patterned after the core-periphery method employed by U.S. companies. U.S.-based companies control all decision-making at its headquarters (the core) and the branch or contractor facilities carry out the orders (in the periphery). Outsourcing is a core-periphery process where the core is situated in a developed country (like the U.S., Canada, Western Europe, or Japan) and the periphery is located in a developing or Third World country such as Mexico and Central America. In this study, Hanesbrands contracted with a company headquartered in Japan but its manufacturing (contractors) were located in Indonesia, Thailand and the Philippines. As such, this outsourcing arrangement was a core-core contractor-contractor relationship. The core is Hanesbrands, the core contractor is Daiwabo in Japan, and the contractor is the manufacturing facility peripheral to Japan: Indonesia, Thailand and the Philippines. Although the Japanese contractor was a middleman, it can also be said that he was a type of apparel broker in the region. This "broker" possessed manufacturing knowledge of the region that Hanesbrands did not. Hence, this triangle-middleman provided several functions to Hanesbrands that wasn't discovered until after the contracts had been secured and production was in full swing for six months.

Survey participants recognized that although each outsourcing relationship begins with site selection for an inexpensive natural resource and a capable labor force, not all contractors react and perform the same. Some regions like Mexico and Central America are conducive to basic/basic fashion products of simple construction and high production volumes that is sold year-round in mass channels whereas some regions like Asia (the Far East and Near East) are best utilized for basic fashion and fashion products which require a fast turn around and the shortest shelf life.

CHAPTER VII

CONCLUSION

The Weberian Location Theory proposing that transportation costs determine manufacturing location is less relevant in site selection than resource availability and contractor characteristics for the outsourcing of Sara Lee Branded Apparel (Hanesbrands, Inc.) product from 1995 to 2000 are true. However, other aspects of the Weberian Location Theory are applicable and hold such as location selected close to the natural resource. The Heckscher-Ohlin Theory squarely states that a country should exploit its most abundant and cheapest resource, which in this case is inexpensive water and inexpensive manufacturing labor.

Responses from outsourcing professionals employed with Hanesbrands, Inc. from 1995 through 2000 stated that transportation nodes and networks were significantly less relevant in site selection than in-factory characteristics, location of the factory, labor skill capability and customs tariffs as primary concerns. Secondary concerns are closely tied to the primary concerns which include physical safety (of the facility, in transporting supplies and finished product, and in transporting labor to and from the facility), economic stability of the country and contractor, and the contractor's ability to align with American corporate practices such as high efficiencies, high production, timely delivery of finished product, and social responsibility.

Hence, transportation costs do not impact the location decision or production chain functions (models 1-3 as well as product categories of basic, fashion-basic and fashion garments) as in times past. Now, contractors assume much of the pre-production responsibilities in procuring the raw or processed materials, ancillary supplies, garment production, and packaging. Instead, cultural characteristics of the contractor facility and labor enable outsourcing professionals to esteem time sensitivity, timely delivery and solid contractor-company relationships. Successful production is contingent on the appropriate placement of the right garment construction with the contractor suited for that production chain task based on design complexity and contractor's ability to achieve production deadlines.

This study reveals that as outsourcing of apparel and textiles continue, some locations may have an advantage in securing contracts with U.S. manufacturers if they can prioritize "time sensitivity", deliver goods "on time" according to contracted schedules, with a focus on building "long term relationships." Apparel and textile contractors that do not possess these traits may be relegated to reduced production capacities that endanger their ability to compete in today's aggressive manufacturing and retail markets. Hence, Asian apparel and textile manufacturers have a competitive edge compared to those in Latin America and challenge the findings of the Duke University survey that stated the preference of this manufacturer for Latin America, specifically, Mexico.

However, the Duke Survey collected data directly from international import records and based their findings on total dollars and total units produced by global

regions. Although Hanesbrands, Inc. production in Latin America featured a lower ROI than other regions, Mexican facilities still made significant contributions to the bottom line. It appears that with less contractors selected in Latin America for Asia, the host company could be focusing on more production at higher ROI facilities.

The outsourcing of American manufacturing to the international sector continues to evolve from a history rich in supply chain/logistics utilization as proposed by Alfred Weber's Location Theory even as transportation networks became more efficient and less-costly. These "spaces of production" can occur anywhere but even so, are not all equal. The places that possess preferred characteristics have the availability and access to natural resources have the advantage. Now, there exists an additional set of cultural criteria that outsourcing professionals deem critical in contractor selection: "time sensitivity", "on-time delivery", and the establishment of "long term relationships" with the host company.

Without this arsenal of characteristics, a contractor cannot be preferred by outsourcing professionals in control of which locations are selected for industrial activity. Latin American contractors have provided U.S. manufacturers with years of consistent production but Asian contractors are pursuing their share of the apparel and textile outsourcing market. Arguably, the new data from this study requires Latin America to "up the ante" to keep up with the competition or the global outsourcing machine will move from the United States to Asia without a stop in Latin America. Clearly more research is needed at a broader scale to assess whether other U.S.-based outsourcing professionals share the same opinions and preferences as those surveyed here and if there

are other cultural characteristics that significantly contribute to site and contractor selection. Still, there may yet be other emerging regions that will supplant Latin America and replace Asia in the race to find the lowest-cost-fastest producing outsourcing contractor.

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APPENDIX A. TABLES

Table 1. Product Categories of Outsourced Apparel Manufacturing (Dicken, 2007)

Basic	Basic Fashion	Fashion
Simple Construction	Simple Construction	Complex Construction
Easy Care Fabric	Easy Care Fabric	Varied Fabric Care
Low Cost/High Volume	Trend Color	Seasonal Production
High Retail Availability	Moderate Cost/High Volume	High Cost/Low Volume
Low Return on Investment	Moderate Return on Investment	High Return on Investment
Low Risk	Possible Longevity Product	Shortest Shelf Life
Fast Production	Design Determined by Consumer	High Risk
Low Skill Required	Low Risk	Moderate to Slow Production
	Fast to Moderate Production	Moderate to Specialized Skill Required
	Low to Moderate Skill Required	

Table 2. Global Apparel Exporters 1980-2003 (Dicken, 2007)

% Share World Exports			Annual % Change			
Exporter	**1980**	**2003**	**1995-2000**	**2001**	**2002**	**2003**
China	4.0	23.0	8	2	13	26
EU 15 External	10.4	8.4	0	7	5	15
Turkey	0.3	4.4	1	2	21	23
Hong Kong	11.5	3.6	1	-7	-10	-1
Mexico	0.0	3.2	26	-7	-3	-5
India	1.7	2.9	8	-11	10	7
United States	3.1	2.5	5	-19	-14	-8
Bangladesh	0.0	1.9	16	2	-6	8
Indonesia	0.2	1.8	7	-4	-13	4
Romania	-	1.8	11	19	17	25
Thailand	0.7	1.6	-6	-5	-6	7
Korea	7.3	1.6	0	-14	-9	-8
Vietnam	-	1.6	-	3	41	35
Morocco	0.3	1.3	-	-2	4	16
Pakistan	0.3	1.2	6	0	4	22

Table 3. Global Apparel Importers 1980-2003 (Dicken, 2007)

% Share World Imports			Annual % Change			
Importer	**1980**	**2003**	**1995-2000**	**2001**	**2002**	**2003**
United States	16.4	30.2	10	-1	1	7
EU External	23.0	25.6	3	2	6	18
Japan	3.6	8.3	1	-3	-8	11
Canada	1.7	1.9	7	6	2	12
Switzerland	3.4	1.7	-3	0	7	14
Russian Federation	-	1.6	-	13	27	-4
Mexico	0.3	1.3	14	-3	-5	-9
Korea	0	1.1	4	25	38	11
Australia	0.8	0.9	8	-12	11	20
United Arab Emirates	0.6	0.8	1	9	15	-
Norway	1.7	0.6	-2	-4	10	12
China	0.1	0.6	4	7	6	5
Hong Kong	0.9	0.4	14	11	-16	-38
Saudi Arabia	1.6	0.4	-2	6	6	13
Singapore	0.2	0.2	-6	-18	18	-2

Table 4. Hanesbrands, Inc. Manufacturing Locations (by rgion)

Latin America	Asia	Middle East & Europe
Argentina	Cambodia	England
Brazil	China	Egypt
Colombia	Indonesia	Israel
Costa Rica	Japan	Madagascar
Dominican Republic	Macau	Pakistan
El Salvador	Philippines	Qatar
Guatemala	Turkmenistan	
Haiti		
Honduras		
Jamaica		
Mexico		
Nicaragua		
Puerto Rico		

(Source: Sara Lee Branded Apparel/Hanesbrands Survey Participants, 2007)

Table 5. Quantitative and Qualitative Ranking Table: 1995 and 2000

Product Channel: **MASS 1995**	Product Channel: **MASS 2000**	Product Channel: **SPECIALTY 1995**	Product Channel: **SPECIALTY 2000**
International Production	International Production	International Production	International Production
Puerto Rico (5,5,5) Costa Rica (5,5,5) Jamaica (5,5,5) Honduras (5,5,5) Mexico (5,5,5) Dominican Republic (5,5,5)	Mexico (3,4,3) Costa Rica (5,5,5) Turkmenistán (5,5,5) Dominican Republic (3,4,3) El Salvador (3,3,3)	Honduras (5,5,5) El Salvador (4,4,3) Mexico (4,4,5) Costa Rica (5,5,5) Haiti (4,4,5)	China (5,5,5) Indonesia (5,5,5) Pakistan (5,5,5) Egypt (5,5,5) Israel (5,5,5) Phillippines (4,5,5) Madagascar (4,5,5) Macau (4,5,5) Mexico (3,4,3)
What was the ROI achieved (%)? 26 – 32 %	What was the ROI achieved (%)? 26 – 35 %	What was the ROI achieved (%)? 35 – 45 %	What was the ROI achieved (%)? 50+ %
Type of production Assembled (Mod 1) Assembled (Mod 2) Finished Goods (Mod 3)	Type of production Assembled(Mod 2) Finished Goods (Mod 3)	Type of production Assembled(Mod 1) Assembled (Mod 2) Finished Goods (Mod 3)	Type of production Finished Goods (Mod 3)
Level of overall production complexity 1-2	Level of overall production complexity 2-3	Level of overall production complexity 2-4	Level of overall production complexity 3-5
Quantity by Purchase Order High (~100,000+ dozens)	Quantity by Purchase Order High)~100,000+ dozens)	Quantity by Purchase Order Medium (~25,000+ dozens)	Quantity by Purchase Order Medium (~25,000+ dozens)

(Source: Sara Lee Branded Apparel/Hanesbrands, Inc. Survey Participants, 2007)

Table 6. Qualitative Criteria Selection Table: 2000

Mass and Specialty Production					
International Production					
Selection Criteria by Corporate Management	Selection Criteria by Outsourcing Personnel	Favorable Contractor Characteristics (Mgmt)	Favorable Contractor Characteristics (Environment)	Favorable Contractor Characteristics (Labor)	Preferred Manufacturing Locations
Country Political Stability	Safety (Physical)	Company Stability (Financial)	Safety -Facility -Transportation of Freight from facility to destination	Safety -Transportation to and from facility	16/25 **ASIA** -High Quality Performance -High Quality Standards -Highly Motivated Mgmt and Labor -Educated Labor -Long-term Relationship -High Response to Host company
Country Economic Stability	Product Mfg Capability (Experience)	Technical/Professional Expertise (licenses) -Engineering -Accounting- -Laboratory -Supply Chain -Customs Brokerage	High Air Quality Standards	Manufacturing Skills -Ramp-up Proficiency	
Low Cost Natural Resource (water, electricity)	Company Stability (Financial)	Ethical Leadership Practices	High Water Quality Standards	Sense of Urgency "Time Sensitivity"	9/25 **LATIN AMERICA** -Familiarity -Proximity (less travel time)
Customs Clearance	Sense of Urgency "Time Sensitivity"	Positive Motivation Philosophies	Natural Disaster Contingency Plans	On-Time Delivery of Contracted Schedules	
Free Trade Zone or Region Availability	On-Time Delivery of Contracted Schedules	Sense of Urgency "Time Sensitivity"		Commitment to Hanes Brands contract; 1st Quality Production	
	Commitment to Hanes Brands contract; 1st Quality Production	On-Time Delivery of Contracted Schedules			
		Commitment to Hanes Brands contract; 1st Quality Production			

(Source: Sara Lee Branded Apparel/Hanesbrands, Inc. Survey Participants, 2007)

Table 7. Outsourcing Capability Comparisons:
MEXICO & CENTRAL AMERICA

Advantages	**Disadvantages**
Experience with American companies	Low technology investment
Knowledge of American corporate culture	Low capability for fashion/seasonal production
High basic production ("jamon")	Low relationship building
Proficiency with standard colors and construction	Low urgency to compete for U.S. contracts
High FDI (labs, machinery, instruction, global compliance standards)	Low sense of urgency; time sensitivity
High management catering to U.S. company representatives	High educational disparity between workers and management
High "play the game" with U.S. companies	Very low education; high illiteracy
High focus on Human Rights, Diversity, Gender Equality	High "plantation mentality"
High production efficiencies	Low critical thinking skills and application
High assimilation of U.S. cultural practices (wasteful, materialism, etc.)	Moderate to high error; moderate to high off-quality production
Spanish/English capability by management	Low experimentation with new products or technology
Proximity to the U.S.; reduced travel time	Requires constant supervision by U.S. company; "babysitting"
Familiarity with Latin American cuisine, music and culture	Requires frequent on-site monitoring by U.S. company
Knowledge of basic Spanish language	Segmented management practices
Fast price negotiation process	Disjointed standards of operations from division to division
High non-pecuniary requests as part of wage package	

(Source: Sara Lee Branded Apparel/Hanesbrands, Inc. Survey Participants, 2007)

Table 8. Outsourcing Capability Comparisons:
MIDDLE EAST & ASIA

Advantages	**Disadvantages**
Experience with U.S. companies and American culture	Low FDI (labs, machinery, instruction, global compliance standards)
High technology utilization in factory	No "plantation mentality"
Proficiency with basic, basic fashion and fashion products	Greater travel distance from U.S. to Asian countries
High emphasis in long-term relationship building with U.S. company	Low U.S. knowledge of Asian culture
High sense of urgency, time sensitivity	Improvements to U.S. designs and manufacturing processes
High competition for U.S. contracts	Little to no knowledge of Asian languages
Advanced educational attainment by management; literate factory workers	Unfamiliarity with Asian cuisine or music
High critical thinking skills and application	Asian preference for equal relationship with U.S. counterparts
High production efficiencies	Asian "workaholic" practices
High assimilation of U.S. cultural practices (wasteful, materialism, etc.)	Drawn-out negotiation process
Low to Zero production errors; very low off-quality production	No non-pecuniary requests; higher wage package
High experimentation with new products or technology	
Dependability; requires little supervision by U.S. company	
Centralized management practices	
Unified standards of operations in all divisions	

(Source: Sara Lee Branded Apparel/Hanesbrands, Inc. Survey Participants, 2007)

APPENDIX B. SURVEYS

Survey 1: Outsourcing Questionnaire – Quantitative

(Please answer questions #3 and #4 here. Answer remaining questions on the following table)

1. What are the product lines in your area of responsibility?
2. What is your annual budget?
3. What percentage of your annual budget is earmarked for domestic production?
4. What percentage of your annual budget is earmarked for international production?
5. What are the countries where they are in production?
6. How long have they been in production there?
7. What is the approximate cost for production (by unit or dozens)?
8. What is the Return on Investment margin (ROI)?
9. Is this product line assembled or finished goods?
10. On a level of 1-5 (1=easy, 2= somewhat easy, 3= moderately easy, 4= some complexity, 5=very complex, slightly difficult) rate each product line
11. Have any of these products been previously produced elsewhere?
12. When?
13. What was the ROI achieved?
14. Is this product line assembled or finished goods?

Survey 2: Outsourcing Questionnaire – Qualitative

1. Did you actively pursue potential apparel contractors? Yes No
2. Did you evaluate potential apparel contractors? Yes No
3. What **criteria** (on) did you utilize in the evaluation process?
4. How often did you receive potential contractor leads from colleagues **within** Sara Lee?
5. How often did you receive potential contractor leads from colleagues **outside** Sara Lee?
6. Were there initiatives or strategies that promoted cross-divisional use of contractors?
   a. Yes No
7. Were some contractors more **favored** than others? Yes No
8. Why "yes" or "no"?
9. Where were they located? List all countries.
10. Were some locations more a**dvantageous** than others? Yes No
11. Why "yes" or "no"?
12. List Where.
13. Did you **prefer some locations** more than others? Yes No
14. Why?
15. List Where.
16. Did you **prefer some contractors** more than others? Yes No
17. Why?
18. Where were these **preferred** contractors located?
19. List countries.
20. Did product type determine product placement? Yes No
21. Identify the criteria.

22. Did you ever **discourage** the use of some contractors? Yes No

23. Identify the reasons.

24. Where were these **"discouraged**" contractors located? List countries.

25. If the final decision for site selection were up to you, what would be the determinants?

26. What are your preferred locations for sourcing **simple** production? List countries.

27. What are your preferred locations for sourcing **complex** production? List countries.

28. In your experience of global sourcing, are there one or more regions (Asia, Latin America, Europe, Middle East, Near East,) better suited to apparel sourcing than others? Yes No

29. Where and Why?

30. In your experience of global sourcing, are there one or more regions less suited to apparel sourcing than others? Yes No
31. Why?

32. Where do you foresee apparel sourcing in the next five years (geographically)? List countries.

33. Where do you foresee apparel sourcing in the next ten years (geographically)? List countries.

34. What should <u>disadvantaged contractors</u> do to secure and/or retain corporate partnerships?

35. What should <u>disadvantaged locations</u> do to secure and/or retain corporate partnerships?

36. In hindsight, is there anything that domestic apparel production could have prevented outsourcing manufacturing to the international sector? Yes No

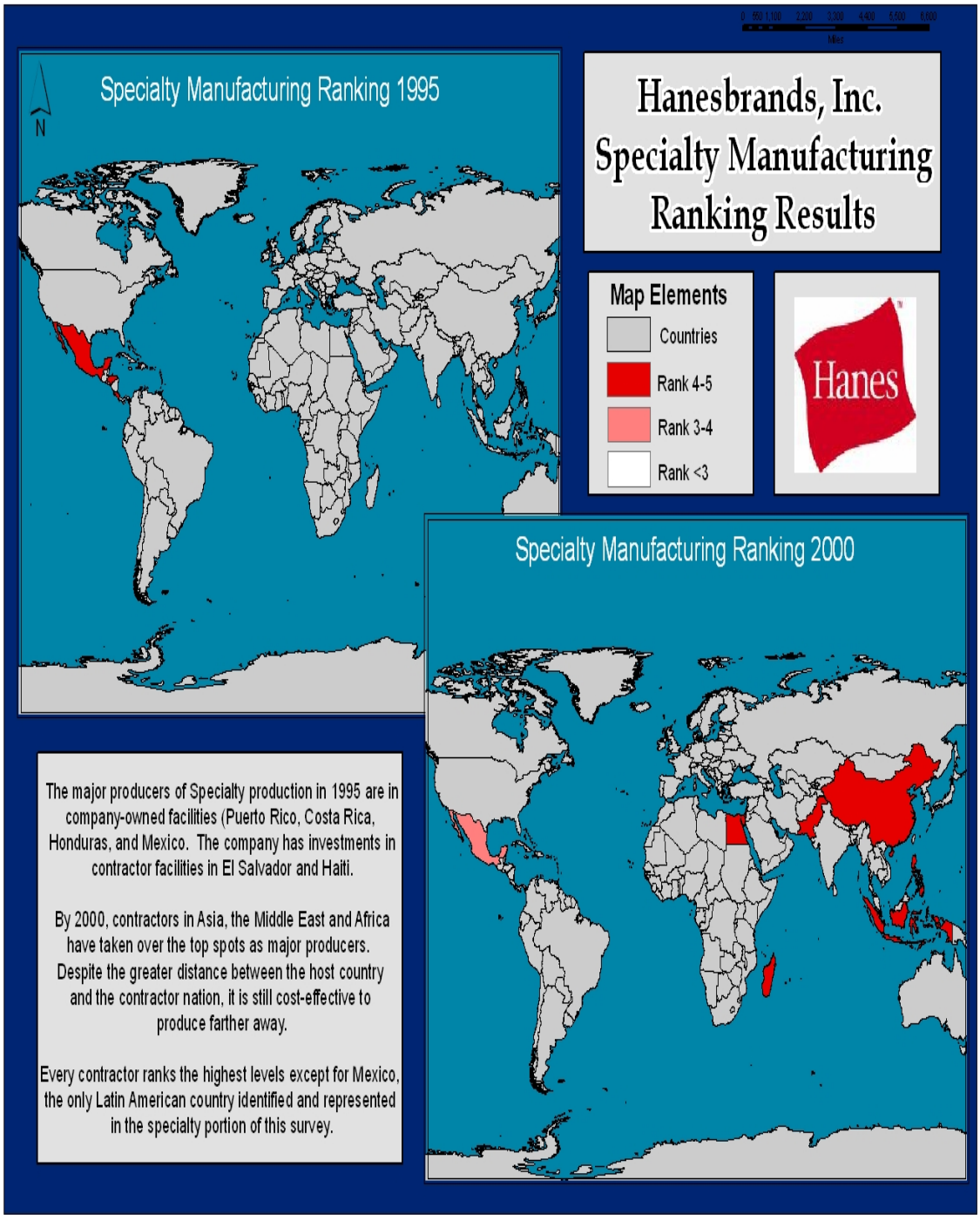
37. How?

APPENDIX C. FIGURES

Figure 1. Hanesbrands, Inc. Mass Manufacturing Ranking

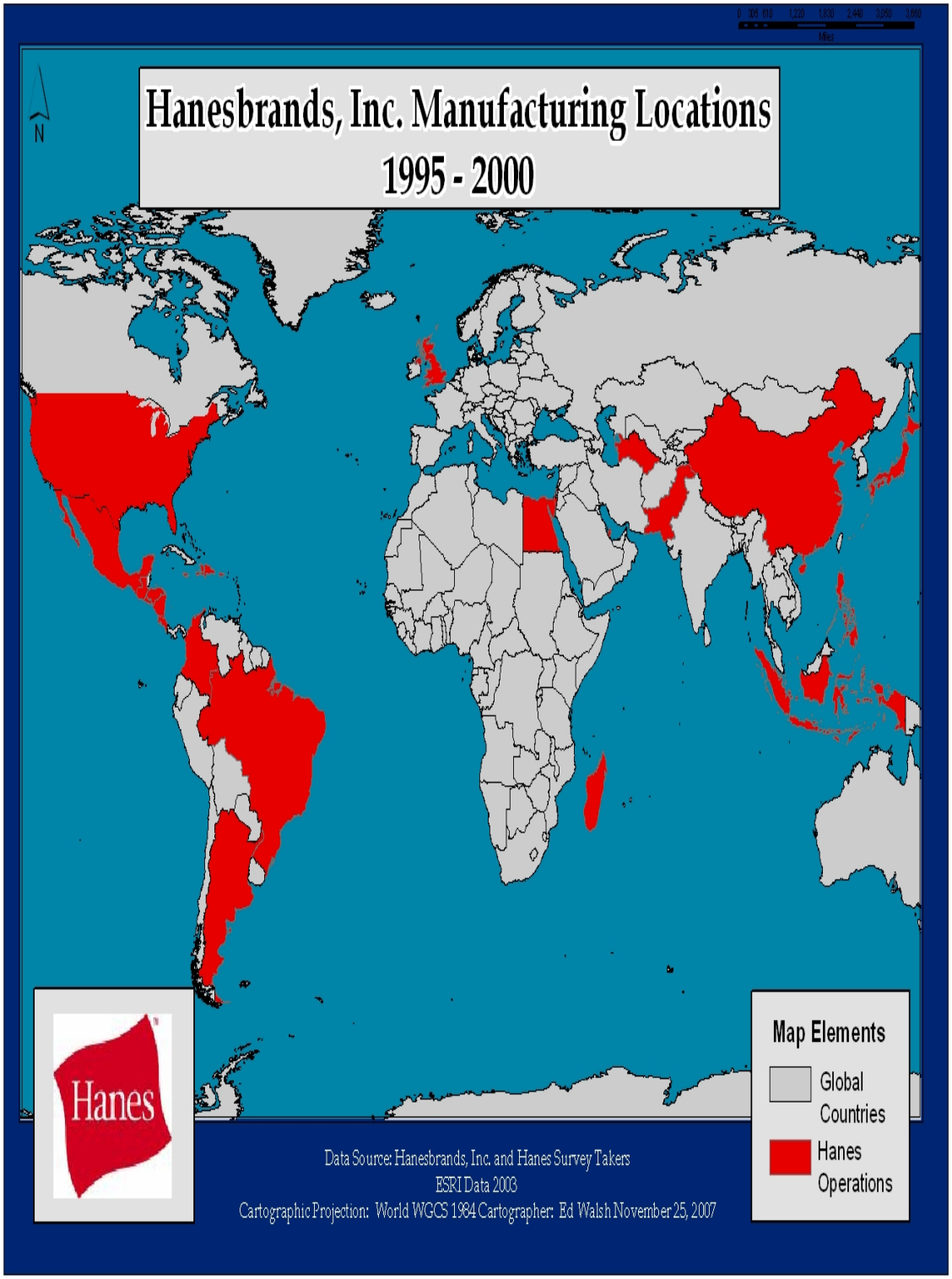
(Source: Sara Lee Branded Apparel/Hanesbrands, Inc. Survey Participants)

Figure 2. Hanesbrands, Inc. Specialty Manufacturing Ranking



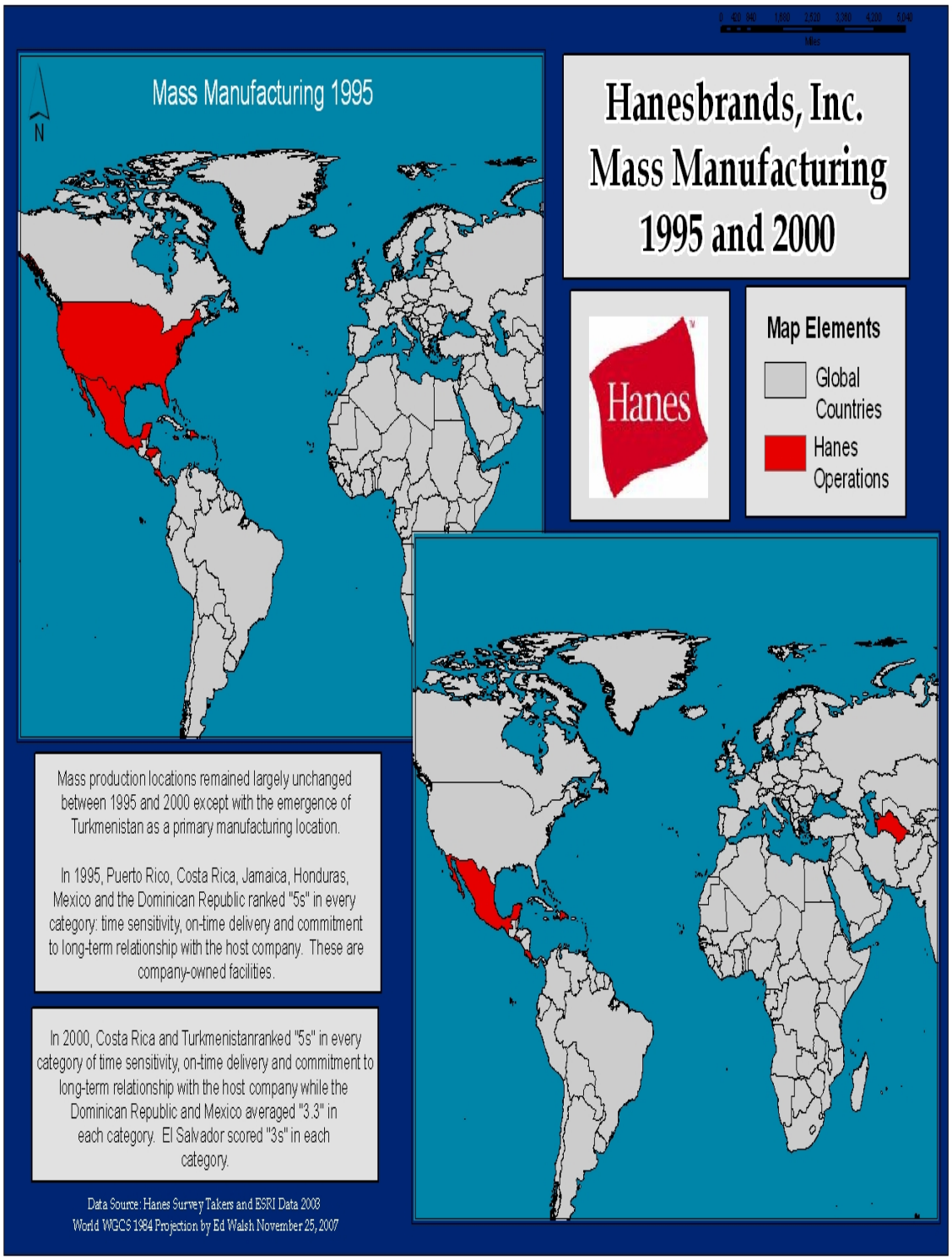
(Source: Sara Lee Branded Apparel/Hanesbrands, Inc. Survey Participants)

Figure 3. Hanesbrands, Inc. Manufacturing Locations 1995-2000



(Source: Hanesbrands, Inc., 2007)

Figure 4. Hanesbrands, Inc. Mass Manufacturing Locations 1995-2000



(Source: Sara Lee Branded Apparel/Hanesbrands, Inc. Survey Participants, 2007)

Figure 5. Hanesbrands, Inc. Specialty Manufacturing Locations 1995-2000

(Source: Sara Lee Branded Apparel/Hanesbrands, Inc. Survey Participants, 2007)